

THE INDONESIAN QUARTERLY

VOL. XIV, NO. 2, 1986:

Current Events

Added Value, Productive Employment,
Balance of Payments: A Reminder of Ground Rules

The Indonesian Business:
Present Conditions and Future Prospects

Indonesia's Energy Policies
in National and Global Perspectives

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A Challenge for Top Corporate Executives

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The Role of Manufacturing in Labour Absorption:
Indonesia during the 1970s

Youth and Society: Viewpoint for the Future --
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Book Reviews

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Manuscripts should not exceed 40 typewritten double-spaced pages. A brief biographical paragraph describing each author's current affiliation and research interests, should accompany the manuscript.

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01381/SK/Dirjen PG/SIT/72
ISSN 0304-2170

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Current Events

Devaluation: To Benefit from Uncertainties

Rumours on devaluation circulating widely for some weeks have taught the society at large and especially the state apparatus, a very useful lesson. From these current events one will learn that today's society is very much in need of adequate information and consistent measures in order to work more in a calm atmosphere, although they have to struggle in facing a more difficult economic situation.

The needed information and measures should be mutually complementary and absolutely not the reverse. Furthermore, a large number of information disseminated by the government's apparatus does not necessarily guarantee a more secure economic life. It is genuine information which constitutes precisely an effective measure to lessen and to overcome feelings of uncertainty.

Steps taken by the Bank of Indonesia to lower the exchange rate of the US dollar was considered by some economists as an appropriate measure. Thanks to those steps it is argued that the society will be increasingly convinced that the government will not devalue the rupiah in the immediate future. The one queried is the question as to whether this argument is correct or whether other measures are needed to accommodate the unfavourable changes in the economic environment facing the country.

To Benefit from a Given Opportunity

According to some economic observers the widespread rumours about devaluation provides an opportunity for speculative windfall profits in spite of the apparent firmness of the government to resist devaluation. How the process came into being is worthy to note and is deemed worth expounding here for further examinations.

Since the partial liberalisation measure in the field of banking was put into effect it turned out that the banks were endeavouring hard to draw funds from the society. As a result a substantial amount of funds flowed into the banking system. The high interest rates offered by the banks constituted one of the main reasons behind this success of funds mobilisation. Nevertheless, a new problem emerged. In the last few months some banks are confronted with excess liquidity, so they no longer wanted the further inflow of funds from the society. On the contrary, they even wish the society to withdraw part of their deposits from the banks.

Refusing people to deposit their money would be a step almost unfeasible for a bank. Alternative uses of funds have, therefore, to be developed such as increased involvement in foreign exchange business. Owing to the widespread rumours on devaluation, some panick stricken depositors have withdrawn their savings from the bank, so that in the course of the event the banks have reaped the benefits out of it.

During the last few months, a growing number of companies experienced an excess capacity, and in certain companies the gap between capacity and the effective production became increasingly wider. In view of the estimate on the economic situation within the next two years, which was expected to be difficult, many people in business, especially those who were dealing in tertiary and/or durable goods, became pessimistic.

Those feelings of pessimism became increasingly suffocating, because those people were not able to penetrate international markets, notwithstanding the supports provided by the government that may serve to enhance their competitiveness. In other words, increased domestic sales continue to be the only feasible way of reducing costs emanating from over-capacity. In this connection the rumours about devaluation provided a good opportunity as fear of suddenly declining value of the rupiah led people to buy goods. This situation was very profitable to certain business circles. The soaring demand has to some business people given the chance to sell their stock and to obtain cash.

To Restrain the Uncertainty

Observing the development lately one may say that the society has been haunted by feelings of uncertainty. However, one should not leave the situation as it is, since in such a situation speculative practices may prosper, producing detrimental effect on Indonesia's development efforts.

Closer examination reveals that the rumours on devaluation started as of the promulgation of the 1986/1987 Government Budget. In the Government

Budget the estimate of government's revenues from the oil sector, which amounted to Rp 8,145.5 billion was based on the export price of crude oil at US\$25 per barrel. When the 1986/1987 Government Budget was promulgated, it appeared that the price of oil in the international market was far below the estimated one in the Government Budget.

Unfortunately both the MPs and the government did not promptly release a detailed elaboration on how the expected revenue can be generated, if the price of oil during the next fiscal year could not even approximate the price estimated in the 1986/1987 Government Budget. Instead, stress was put on the amount of foreign exchange reserve the Indonesian government possesses so that the society remained doubtful as to whether or not the 1986/1987 budgetary targets could be attained without any precautionary measure (devaluation) as was done in 1983.

In the situation which was full of uncertainties some influential economic observers opined that the government would apparently have to resort to a devaluation measure. Using official information and simple calculation, an economist would easily arrive at the conclusion that in order to retain the 1986/1987 Government Budget the government has to take precautionary measures or to make adjustments.

The estimates made by those economists seemed to be more resounding than the government's information stating that there would be no devaluation, causing the society to be affected with panic and to rush in buying up US dollars or other foreign currencies and to start to hoard goods.

Information and Other Measures

Despite the fact that the Bank of Indonesia has made efforts to manage exchange rates, adequate information and other measures are still needed to restore the monetary environment. Seemingly the government needs to give a more detailed elaboration on how to retain the 1986/1987 Government Budget, if the price of oil in the international market would remain far below US\$25 per barrel.

Would the government make adjustments by intensifying her income from taxes, increasing the export of oil, raising the domestic price of fuel or would it revise the Government Budget and sharpen development priorities? Information on alternative measures to be taken by the government in the present situation are greatly called for and are necessary.

One has to take into account that the Indonesian people have become increasingly more astute and keener on using available data. The dissemination of information as referred to above will certainly be more effective if it is carried out by one authorised agency in an integrated manner and not separately by various departments.

Indonesia's capability to increase her foreign exchange reserves is indeed an achievement. However, in the present situation it is questionable whether it still makes sense to have such a large foreign exchange reserve sufficient to finance her imports for six or seven months. As import in recent years have declined and slowing economic activities may further pull import downwards, the demand for foreign exchange reserves should also be adjusted.

In the present economic slow-down, would it not be more preferable if part of the foreign exchange earnings be utilised to fuel activities? It is necessary to raise this question, since one of the main problems to be solved by the Indonesian people nowadays, is exactly the problem of economic slow-down.

Substantial foreign exchange reserve may frighten off speculators. However, what is important is not a campaign against speculators, but to minimize the opportunity for unproductive profit-seeking. This can best be made by curbing uncertainties and creating a more steady and favourable business atmosphere.

Pande Radja SILALAH

The 1966 Generation after 20 Years

A seminar was held in Jakarta, sponsored by the "Yayasan Pembangunan Pemuda Indonesia" (YPPI = Indonesian Foundation for the Development of the Youth). This foundation was founded on 24th June 1980 by exponents of the 1966 Generation having their domicile in Jakarta. This foundation constitutes the forum to accelerate communications amongst exponents of the 1966 Generation. Its objectives and purpose are to prepare the 1966 Generation to become responsible cadres of national development geared towards attaining the ideals of the nation. Based on this outlook exponents of the 1966

Generation who have joint the YPPI held a seminar on the eve of the commemoration of the Supersemar (Surat Perintah 11 Maret -- The 11th March Order). It was again revealed in this seminar as to what extent exponents of the 1966 Generation have played their role, those who were joining the joint action groups. They staged demonstrations which obtained full support from all layers of the society who were against the Indonesian Communist Party (PKI) and had the fullest protection from the Indonesian Armed Forces, particularly the Indonesian Army. These joint actions succeeded in pulling down the old order government to be replaced by a new order government who is determined to implement the 1945 Constitution and Pancasila genuinely and consistently. Nevertheless one can observe that from this forum of the seminar there emerged some problems which have to be solved wisely and prudently by these exponents of the 1966 Generation.

New Crystallisation

In 1966 factors affecting the bonds of unison and joint actions of the youth, students and others were the similar challenges. Those challenges were the decline in the economic life, morality, character and the closed system of the government in regard to social control, and the non-functioning of the state and social institutions. In facing these problems joint action groups, particularly those joining the KAMI (Kesatuan Aksi Mahasiswa -- Student United Action Group) engendered the Tritura (Tiga Tuntutan Hati Nurani Rakyat --The Trifold Conscientious Demand of the People) i.e. to dissolve PKI, (Partai Komunis Indonesia -- Indonesian Communist Party) to lower prices and to reshuffle the Dwikora (Dual People's Command) cabinet on 10th January. These demands of the students were later implemented by the bearer of the 11th March Order in stages and systematically. On 12th March 1966 PKI was dissolved along with all of her affiliate mass organisations and declared being an outlawed party all over the country. Furthermore the Dwikora cabinet was purged through the detention of some of the PKI ministers.

After the stage of consolidation (1966-1968) in the effort to rehabilitate Indonesia's national and social life in line with the stipulations contained in the 1945 Constitution, the New Order government started to carry out the first stage of the national development plan in 1969, in a real effort to improve and increase the standard of living of the people. It was at that moment that Indonesia entered the stage of implementation of the national development in a continuous way. Joint action groups, particularly university and high school students, returned to their respective campuses and schools, while the youth and intellectuals returned to their respective professions. All of them call themselves the 1966 Generation who jointly with the Indonesian Armed Forces

and who had the full support of the people, developed an era of a new government, that of the New Order.

After 20 years of the New Order one can observe that exponents of the 1966 Generation who have contributed to the development of it have spread to all walks of life. There were those who entered the political career who have now succeeded in obtaining the position of members of the cabinet of ministers, as first echelon functionaries at government departments. There were also those who chose their career in the economic field and have now become national entrepreneurs. There were also among them those who have not as yet succeeded in their career. The number of the latter seems to be quite a few. Hence one can say that exponents of the 1966 Generation can be divided into two groups, those who have succeeded in possessing a career in all walks of life and those who have not yet succeeded in having a career.

These two groups of exponents of the 1966 Generation certainly have different aspirations and views with regard to political life, government, economy, socio-cultural matters, defence and security and Indonesia's national ideology. The group who has succeeded may possibly view that the condition so far achieved by the Indonesian nation is already in conformity with the basic objectives of the New Order. They also admit that there are still shortcomings and weaknesses, all of those however remain within the framework of their joint efforts to improve it in line with the system as laid down in the 1945 Constitution and Pancasila, while the group who has not as yet succeeded feel that they are being left behind by their comrades in arms who have succeeded in obtaining a career. There may therefore be a difference in their evaluation of the present performance of the government as compared to the first group.

It is always those shortcomings and weaknesses of the government that are the subject of discussions and they are even of the opinion that the national development which is supported by big foreign loans has failed in its effort to raise the standard of living of the people.

In facing such a reality both the groups of exponents of the 1966 Generation should therefore reaffirm their union. Solidarity should again be revived among the 1966 Generation. They should realise that the existence of those who succeeded and those who failed is a natural process. This is a normal phenomenon. It is necessary indeed to have this awareness so that for those who have obtained careers should not be too proud of themselves and those who have not as yet succeeded should not be downhearted and frustrated. These matters are important to receive first attention from members of the executive board of the Foundation for the Development of the Indonesian Youth (YPPI).

Looking forward

The past, present and future are the realities of life, of the one which has been experienced, which is being experienced and the one which is to be experienced by anyone individually, or as a member of the society. Therefore the success or failure one experiences in one's life at present is a result of one's process of life in the past. And if one is aware of it and is determined to improve the quality of life of one in the future, one should from now on therefore improve one's process of life, individually, or jointly for one's future. This demands of one the capacity in anticipating the future.

This needs to be realised by the young generation, including the exponents of the 1966 Generation, because it is they who are to hold the scepter of leadership of the nation in the future. The ability to anticipate the future should be developed by the young generation. One of the means to develop this ability is through education in the broadest sense of the meaning which implies that not only through formal education alone, but also through reading habits and self-study in line with the principle of lifelong study. One gets the impression as though the young generation, including exponents of the 1966 Generation, has not as yet made it a habit of theirs. This may be due to the assumption that efforts in raising the quality of life can only be made through formal education at schools and universities. Meanwhile one is getting older and becomes reluctant to enter the channel of formal education on the one hand and on the other, one has never acquired the habit of self-study. This self-study habit has to be pushed by a strong will and determination coming from oneself.

In facing the process of the transfer of generation with regard to the nation's leadership, this will certainly proceed naturally and through the process as laid down in the 1945 Constitution, the young generation should therefore endeavour to raise their quality. They must become the generation who is able to master science and technology which is advancing very rapidly. They should in their respective fields of work be the professionals. One of the requirements of leadership in the future is quality which should be owned by a candidate for leadership and no more based on the majority of supporters.

Facts have today shown that Indonesia's young generation in general and exponents of the 1966 Generation in particular, have not as yet sufficiently prepared themselves sincerely for the future. There are still some out of the young generation who still count on the support of the majority to score leadership. This may probably be a problem which should get the attention of the young generation, exponents of the 1966 Generation, who have joined the Foundation for the Development of the Indonesian Youth. They need to tackle this problem through the placing of it in the programme of the foundation.

Ultimately, after 20 years of solidarity among exponents of the 1966 Generation, it does start to dwindle and a crystallisation starts to emerge dividing it into two groups, i.e. those exponents of the 1966 Generation who succeeded to score careers and those who have not. It is also eminent that there exist some differences with regard to their attitudes and views, particularly with regard to evaluating the present condition of the national and social life. This is even more so with regard to anticipating the future. It is not an encouraging situation for the future, considering the role to be played by this generation in the process of generational transition of the nation's leadership. This reality should therefore get some prudent arrangement by those concerned, particularly the exponents of the 1966 Generation themselves.

BABARI

The Philippines: Homework for a New Government

The new President of the Philippines, Mrs. Corazon Aquino, seems to enjoy broad popular support at home as well as warm acceptance abroad. She has emerged to the top of political struggle in the country by challenging the now deposed President Ferdinand E. Marcos in a snap election in February 1986. After having been in power for two decades Mr. Marcos, in the midst of recent political and economic crises, continued to believe that his control of power could win him the election. But charges of electoral fraud, manipulation practices, and the use of violence during the process of election shattered his dream. These charges had led to the much more determined resistance of the opposition group for civil disobedience in support of Mrs. Aquino as the rightful winner of the election; the defections of Mr. Juan P. Enrile, the Minister of Defence, and General Fidel Ramos, the appointed Chief of Staff of the Philippines Armed Forces replacing General Fabian Ver, to the opposition camp; and, equally important, the denunciation of Marcos' claim to being the legitimate winner of the election by the Philippines Catholic Church and the termination of US support to Mr. Marcos.

However important those factors to the downfall of Mr. Marcos, and the rise of Mrs. Aquino to power may be, it seems unrealistic to assume that the new regime will smoothly manage the administration of the country that has been beset by political, social, as well as economic crises. Despite the fact that during the first month of her presidential tenure she was able to control the situation so as to create a more normal life in the country after the revolution,

criticism has been directed to her presidency concerning the legitimacy upon which the mandate is justified and the future unity among the power holders after the "honeymoon period" is over. Considering the political, social, and economic legacies left by President Marcos, problems might emerge in the future, and these could not be fully comprehended unless the complexity of the problems are realised by the new administration.

Indeed, the tense political crisis in the past two years or so, following the assassination of former opposition leader Benigno Aquino, Jr., could be viewed as a vital and necessary factor in the process of defining the future course of political developments in the Philippines. This means that to bring about a more peaceful political change and development in the country, a certain political mechanism or institution that can fulfill the Philippines' political aspirations is needed. It is this aspect that Mrs. Aquino's government should give greater attention to so as not to repeat Marcos's tragic experience.

At first glance, Mrs. Aquino looks like adopting President Marcos's practices during the Martial Law period in dealing with the problem of the accumulation of power in the single hand of the President to administer the country as she signed the provisional "Freedom Constitution." This has consequently led to the abolition of the 1973 Constitution while a new one will be drafted within three months after a Constitutional Commission has been established; the dissolution of Parliament (Batasang Pambansa) whose MPs were elected in 1984; the termination of local elections; and attempts to reorganise central and local governments. In other words, she is now ruling the country under a decree called "Freedom Constitution" until the temporary nature of her government, as she has promised, is revoked following the Philippines' approval of a new and permanent constitution some time toward the end of the year through a plebiscite. By then, presumably, a constitutional government will take over the administration, though there is no specific time-limit given to Mrs. Aquino's rule.

Thus critics may argue that Mrs. Aquino is equally dictatorial as Marcos, if not more, in exercising power. The nature of her government, which is intended to be transitory, may become permanent. Some segments of the Philippine society, particularly Marcos supporters in the Kilusang Bagong Lipunan (KBL) and former MPs, including those who come from UNIDO, have expressed their opposition to or resentment against the new regime. To a large degree, the dissolution of the Batasang Pambansa means the exclusion of former MPs from the decision-making process and structure; and this is one reason why some former UNIDO MPs may oppose Mrs. Aquino's policies. Another reason that may lead to a possible cross-over among UNIDO members to the KBL is the presence of some radicals and left-leaning personalities within Mrs. Aquino's Administration, who tend to pursue more radical and nationalistic policy line regarding several issues. If the spectrum of this op-

position broadens, it may result in re-thinking of political loyalties among supporters of the present government and may possibly lead to a re-alignment of forces within the government establishment.

One significant, if not decisive, issue concerns the direction and content of the future constitution upon which the Philippine political system and institution are based. To a certain degree this will be determined by those who are included in the Constitutional Commission. In the broadest sense, the Constitutional Commission should include representatives from the broadest spectrum of society so as to accommodate more popular aspirations. However, such a commission may become a problem in itself, particularly if elements of the KBL, and many more of the New People's Army (NPA) and the Communist Party of the Philippines (CPP), are included in the commission. On the other hand, however, the new constitution can be drafted by elected "wise persons" -- reputable lawyers or others -- irrespective of their political affiliations or preferences. This should not become a serious and fundamental issue since the acceptability of the new constitution will subsequently be decided through a plebiscite.

Another political issue, which may be important to the future of the administration, is the government's policy that relates to domestic security and external relations. With regard to internal security, two important problems should be treated carefully due to the possible effects on the people at large and on the future political life of the Philippines, namely, the problem of communist insurgencies and that of Moslem communities in the South. The NPA and CPP have so far remained a serious security challenge to the country. Despite Mrs. Aquino's call for national reconciliation and her appeal to those who have gone to the hills to return to the field and her efforts to negotiate for a ceasefire, NPA's armed activities have continued throughout the country, particularly in the rural areas. Thus, Mrs. Aquino's release of political prisoners, including four leaders of the NPA and CPP, may cause controversies among her assistants and advisers as to whether such a decision would not increase security risks and thus deteriorate the situation. The problem of Moslem communities in the South also needs particular attention so as to integrate them into the national system, taking into account their specific socio-cultural values, which are different from those of the Christian majority.

With regard to external relations, US-Philippine relations continue to be a most dominant feature. Within this context, of paramount importance is the debate over US military bases as to whether a termination of the bases is the best solution for the interest of the Philippines as well as the region. The presence of US military bases in the country has given the Philippines not only military and economic benefits but at the same time also political and diplomatic burdens, especially in the context of East-West rivalries, as well as their security implications for the region of Southeast Asia. For the Philip-

Philippines, the United States constitutes one of the most important economic partners. A sudden change in US-Philippine relations may have broader consequences: to the region mainly because of security and military reasons and for the Philippines particularly in economic terms. It is believed that Mrs. Aquino would make these considerations in dealing with the United States.

On the other hand, the Philippines relations with its neighbours, particularly with other ASEAN member countries, is another issue of importance. It is not clear as yet whether the new administration will adopt a new course of policy line to strengthen its regional commitment, but certainly the other ASEAN member countries are likely to expect the new administration to be more actively involved in regional affairs. One particular issue in this regard concerns the Philippine claim to Sabah, which has led to strained relations with Malaysia for long. Yet the issue is still pending since the last ASEAN Summit in Kuala Lumpur in 1977. Should the Philippines drop the claim, or "negotiate" with Malaysia and resolve the issue, this would greatly strengthen ASEAN. Viewed from this perspective, the Sabah question should be given priority in the future direction of the Philippines' external relations.

Furthermore, the Aquino Administration has inherited socio-economic crises from the Marcos regime. The problem now is, having won the political battle through a relatively peaceful revolution, whether she can still win the socio-economic battle. In the past few years Philippine socio-economic conditions have deteriorated remarkably. Steep drops of annual economic growth since at least 1983, high rates of external debts, inflation, the fall of its exchange rates, lower prices of its traditional export commodities, massive unemployment and under-employment, landless peasants, and a large proportion of the population living below the poverty line, are among others the serious problems that her administration must deal with. Current economic and financial measures, however, have been helpful in alleviating the socio-economic conditions of the country. But more efforts are needed for further improvements, which may involve the problem of priorities in the future. Problems of economic growth versus equitable distribution of wealth may emerge and complicate Mrs. Aquino's tasks.

If the Aquino Administration is able to cope with those issues successfully, there is hope for more stable and peaceful political, social, and economic changes and developments in the Philippines. This would benefit not only the Philippines itself but the region of ASEAN as well. For the moment, however, challenges are still great, and the momentum for change that has been created should not be interrupted by old-fashioned political quarrels among political factions and personalities in the country.

Added Value, Productive Employment, Balance of Payments : A Reminder of Ground Rules

Sumitro DJOJOHADIKUSUMO

The majoreconomic challenge, which Indonesia must face at present and which has important ramifications to its social and political stability in the immediate future and in the longer run, comprises two sets of interrelated problems:

1. how to maintain the level of real income, and where possible to raise it, within the constraint of limited resources.
2. productive employment for a growing population, among which the youthful age group in the labour force tend to move increasingly to urban centres.

There is no need to elaborate on the theme of limited resources. It refers to the quality of Indonesia's human resources and the relative constraints in terms of technical skills, professional expertise, managerial capabilities and not the least important of the development of its science community. As regards financial resources there is the dire necessity to intensify the mobilisation of domestic resources and to generate additional sources of foreign exchange.

Conditions at present and in the foreseeable future call for the judicious use of resources, cost effectiveness and efficiency. Indulging in the technical jargon of professional economists, it all boils down to the need for reducing the "*capital-output ratio*," in consecutive sequels in the process of production, transportation and distribution.

Employment has received major emphasis in President Soeharto's recent State of the Nation address on 16th August 1985. He has candidly identified and

Address to the Indonesian Institute for Management Development at the first graduation ceremony of its MBA Programme, Jakarta, August 22, 1985. Sumitro Djojohadikusumo, Ph. D., is Professor of Economics, University of Indonesia.

acknowledged it as the one major problem which has not been coped with in a fundamental sense. The author has in recent years viewed employment and unemployment (open and concealed) in developing societies in terms of their capability to raise earnings in real terms. The greater part of the working population comprise unorganised and non-formal labour groups in rural areas and in urban centres. Remunerative employment means not only broadening the scope of human activities, but perhaps more important, increasing their productivity and real incomes in the "traditional" sectors as well as in the "newly expanding" ones. Productive employment, viewed as an income problem, is related to what is called the "dependency burden," i.e. the number of people supported by each actively and productively employed worker.

Increasing productive employment involves persistent efforts to reduce the ratio of the "dependency burden," which is still at a high level at this stage of Indonesia's development. In this context, productive employment is an important leverage for dealing more effectively with absolute poverty and with relative inequality in the distribution of wealth and income. Describing it briefly, policies aimed at reducing the capital output ratio and reducing the dependency-burden ratio provide an important venue towards attaining economic efficiency of the social system.

There has been in economic thinking and in economic policy-making, misconceived perceptions on the issues of efficiency and equity wrongly presumed to contain an inherent dichotomy; or in its dynamic version, on the perceived "trade off" between economic growth and equality, -- still a source of lingering and fruitless controversy. Fruitless because the dichotomy is more assumed rather than real, and hence irrelevant.

Considerations of equity are too easily put forward as a rationalisation for preserving the interests of particular sectors or groups of society. That "equity" is partial and temporary. It carries the seed of new and more serious inequities and inequalities, when productivity advance slows down and real incomes decline for the larger part of the population.

From the viewpoint of the economic system as a whole and of society at large, efficiency of the system leads to equity among social groups and to a reduction of regional disparities. The author therefore boldly asserts that observance of economic efficiency of the social system as a major policy guidepost is a *conditio sine qua non*, in order to give operational value to concepts of equity and social justice.

In the light of the foregoing observations and considerations, one has to take a closer look at the desideratum of "added value," which is often associated

(explicitly or implied) with Indonesia's policy of stimulating domestic production and of actively influencing consumers' preference towards the products of her domestic industries. The author is himself a proponent of nett value added to each of the consecutive links in the total chain or cycle of economic activities, thus leading to positive growth rates in macro-terms. He is also a supporter of domestic productive activities which by utilising local materials and available labour contributes to higher incomes based on increased productivity.

However, it appears that added value is being elevated to a pre-eminent dimension in the pattern of Indonesia's industrial development; at times and less than amusing even as a sort of password to societal progress. Added value has recently gained wide currency, perhaps because it can serve as a convenient catch-phrase for all people and for groups of various shades and particular interests. Such a "one-dimensional" approach to fundamental problems is vulnerable to reversals and disappointments. It is also inimical to economic development and social progress.

One cannot evade the question: added value at what cost? This is with specific reference to the limited resources which the author referred to at the outset. Furthermore in the context of domestic production, at which level of costs and prices is that being fostered and what is the structure of such costs and prices? This is with a view to the low level of real purchasing power, effective demand, prevailing among the larger part of the Indonesian population.

It is significant that the President has pointed out in his address that domestic industrial enterprises are required to continuously improve the quality of their products and to increase efficiency in order that such products can be offered at prices competitive in the domestic market relative to imported merchandise and in foreign markets vis-à-vis manufactures from other producing countries. Nett added value must therefore be measured in terms of domestic resource use while taking into consideration the additional dimension of foreign exchange (nett foreign exchange earned and/or foreign exchange saved). It applies not only to the technical-physical production process within individual firms or to specific commodities on a case-by-case basis. In the context of economic efficiency of the social system, added value and relative resource use must take into account the opportunity costs related to productive employment and balance of payments considerations. The pursuit of added value in and of itself, but with disregard of productive employment is tantamount to inviting social restiveness and internal political instability. Neglect of balances of external payments will lead the country to the bondage of international indebtedness, in which so many countries of the Third World find themselves today.

At the risk of being repetitive, it is to be stressed again that development entails a continuous effort to cope with and to rectify structural disparities and imbalances with regard to:

1. the endowment of resources impeding the accumulation of productive capacity;
2. the allocation of productive resources among sectors and regions within the country;
3. wealth and income and gross inequalities in their distribution;
4. the prevailing institutional framework and its deficiencies relative to the demands of modernisation.

Public policies must therefore be aimed at changing the set of conditions set forth by structural disparities and imbalances. Thus, development as structural change can be viewed as a process of perennial "structural adjustment."

The policy framework for effectuating structural change and adjustment has three interrelated and interdependent dimensions, viz growth in terms of added value, productive employment, and the balance of payments. Given the open nature of the Indonesian economy, external economic relations figure prominently as strategic variables to national income, public revenues and the availability of foreign exchange.

When Indonesia tries to find an answer to her question as to resource use relative to added value, then empirical evidence in her contemporary setting strongly indicates the prevalence of excessively high costs in certain sectors and for a number of products or range of products domestically produced: certainly so when measured with the yardstick of opportunity costs relative to productive employment and foreign exchange. On a different occasion, when early this month the President opened the Indonesian Exposition of Domestic Production, he alerted the people that policies to actively stimulate and expand domestic industrial production should in no way provide an excuse for "feather bedding" of domestic industries (verbatim the President used the Indonesian term "*dimanjai*"). Yet the author is afraid that feather bedding is exactly what is happening in concrete cases that can be pinpointed without difficulty.

This situation has been fostered to a large degree by the regime of trade and tariffs practised in recent years in the name of industrial development. It is propounded that import tariffs have been substantially lowered over a wide range of products and ergo existing protection is considered reasonable and justified. Such generalised pronouncements do not give a realistic picture, because they overlook the distinction between *nominal* rates of protection and *effective* rates of protection, pertinent to individual goods and/or categories of products. To the dismay of the author, he finds that there is an insufficient

awareness, at least judging by their public statements, on the part of policy makers as well as business executives and the latter's Associations in Kadin (the Indonesian Chambers of Commerce and Industry), of the relevance of effective rates of protection and its constituent components. It is hoped that it is due mainly to unfamiliarity with this concept as an important tool of measurement, -- and not to blissful disregard, or worse, to deliberate benign neglect motivated by special interests. Be that as it may the author strongly urged that more discussions in depth and wider public debate be initiated on this important subject among decision makers in public offices (and their staff normally assigned to prepare "position papers"), among business executives and their associations, and among professional economists and engineers.

Worth to mention here is that protection takes the form of tariffs and non-tariffs barriers. Among the latter the main elements are subsidies or surcharges (open and concealed) and quantitative controls by administrative restrictions in the form of quotas, the designation of a limited number of traders and/or producers, and outright bans on imports or exports. The nominal rate of protection indicates the degree of protection enjoyed by the *product* against imported merchandise. The combination of tariffs, subsidies or surcharges and quantitative-administrative restrictions over the *entire production cycle* leading to the output of final goods result often in effective rates protection quite different and much higher relative to nominal rates.

One must therefore take into account not only the effect of protection (as a combination of tariffs, subsidies or surcharges and quantitative restrictions) on the final product, but also the effect of such protection on the various resources (labour, local materials, capital equipment) used in the production process. In other words, it is not only a matter of the nominal rate of protection on *output*, but also the total effects of protection on *input* prices.

When one looks closely at and more in depth into concrete and specific cases of domestic manufacturing, then by the yardstick of effective rates of protection one can observe excessively high costs in terms of resource use relative to nett added value obtained. It is true that the general level of tariffs has been lowered over a wide range of import products. Nevertheless, the deficiencies in the tariff structure combined with indiscriminate and the injudicious administering of quantitative restrictions have brought about serious distortions. These have led to the situation where in a number of cases the highest protection is effectively enjoyed by the least efficient industries. If not rectified soon, it means a reinforcement of inefficiency and a perpetuation of excessively high costs inimical to the interest of lower income groups that constitute the larger part of Indonesia's population. In the final analysis it impedes the development of a strong industrial basis.

The combination of the kind of tariff structure and administrative controls referred to above has also impeded employment growth.

At the very least it can be said that growth and growth rates of employment during the first part of this decade has been less than hoped for and less than could have been achieved under a different trade and tariff regime.

Protection is high in sectors producing final consumers goods and/or assembling consumers' durables, but extremely low in sectors producing capital goods and intermediate inputs. Hence there is a built-in inducement for industries to use (import) large amounts of capital and small amounts of labour. The structure of protection tends to encourage investment in sectors with limited potential for providing employment to Indonesian labour. This trend is aggravated when high-cost upstream industries, which provide basic inputs to more labour intensive downstream industries, are given a position where they can force their products on their customers. Such conditions can further impede the growth of employment in the labour intensive industries.

Under the existing pattern of the manufacturing sector a great number of goods currently "produced" in Indonesia are assembled almost entirely from imported components. The high import content in the domestic manufacturing process in addition to the preceding investment in capital equipment, contributes little to net foreign exchange earnings. And yet the aggregate requirements of foreign exchange for the Indonesian economy as a whole will keep increasing in view of the needs of an increasing population and of development programmes of crucial importance.

It is interesting to note that tariffs, trade and industrial licencing as applied during the last few years have run counter to the government's declared policies aimed at reducing high-cost and at stimulating economic activities of the private sector through deregulation, reforms of systems and simplification of procedures.

Since early 1983 the government has embarked on a series of bold policy measures of major importance: budgetary programmes and fiscal policies timely adjusted to changed conditions, involving a drastic review and postponement of costly projects, monetary reforms entailing adjustment of exchange rates and a reorientation in the role of banking institutions.

Then early this year with the announcement of Presidential Directive No.4 the systems and procedures concerning customs inspection, port handling and sea transportation were overhauled, thus facilitating the regular flow of goods and services in and out of the country and within the archipelago and thereby stimulating and expanding activities in production, transportation and distribution. But during the same period this policy approach was countered by the stultifying effects of a variety of trade and industrial licencing, quotas,

import bans and production limitation through the closing of sectors to new entrants. While during the 1970s, generally speaking, quantitative controls were the exception rather than the rule, the practice of trade and industrial licencing crept up again in 1982. It has been extended ever since. Various government departments and agencies, often in collusion with business associations or special interests have been putting pressure to that effect on the Trade Department in the form of "recommendations." At this stage there are more than 1,000 products subjected to import regulation and licence.

Indonesia is thus caught in the middle of contravening cross currents. She must somehow overcome the dilemma in order to pursue her twin objectives of capital-output ratio reduction and a lowering of the dependency burden. There is no other way than to follow up on Presidential directive No. 4 of 1985. In other words, to further review and reassess and then to reform and simplify, if not to eliminate altogether, the range of quantitative controls and administrative restrictions.

Many of those restrictions have been defended all too facilely in the name of supporting domestic production and protecting infant industries. The need for *protection of infant industry* to allow a learning process is generally accepted. The author has duly acknowledged it, -- provided it is done so in an overall context of step-by-step moves towards policies that lead to economic efficiency set forth by the interrelated criteria of nett added value, productive employment and balance of payments considerations. The evidence of current practices indicate that it is better to resort to a uniform measures system. Such a system minimises distortions and simplifies policy making and administration, compared to discretionary and often arbitrary measures on a case-by-case basis. Case-by-case protection on an ad-hoc basis is presently combined with quantitative controls. They create business uncertainties and administrative delays and encourage corruption.

As a general proposition it can be stated that the most effective policies for trade and industry appear to be those that emphasise uniformity rather than arbitrary discretion and that provide overall protection of a moderate kind. It is essential that specific time tables be explicitly adopted and enforced for phasing out special "facilities" of a restrictive kind to ensure that infant industries be ready to stand on their own within a reasonable period. What is happening now is just the contrary, viz almost perverse application of the infant industry argument. The highest effective rates of protection are being enjoyed in the oldest industrial sectors and by well established firms. And even so entrenched interests continue to press for still more protection and additional "facilities."

Perceived "saturation" of the market and therefore observed "excess productive capacity," or existing capacity deemed able to meet domestic

demand have been propounded with disregard of the basic question: at which level and with what structure of costs and prices? Obviously, in such reasoning the present constellation of the level and structure of costs is taken as constants! Should Indonesia give in to arguments of that kind; however eloquently formulated by pressure groups and lobbys, she would be pushed into a position of "static defence," leaving no room for innovation and modernisation.

On the pattern and direction of industrial development, it is in a way unfortunate that policy debates and recommendations have been cast in terms of "export orientation versus import substitution" or "outward looking contra inward looking" strategies. The pros and cons of the extent to which countries should rely on "inward looking policies of import substitution" or "outward looking export orientation" remain the subject of lively debate and heated controversy. It may have been due to the zealous propagation of economic and monetary missionaries with a predilection to proclaim their perceptions and findings as dogmas of economic religion. One would be well advised to avoid fruitless and rather irrelevant arguments about export orientation as the path to Nirvana and import substitution as the source of evil and fundamental sin.

There is a danger of interpreting links between outward looking policies and national and per capita growth too simplistically. It is quite plausible that in the dynamics of longer term development, growth and more open policies have both been the result of an earlier phase of successful inward looking policies. The author readily conceded, however, that there is the need to expose commerce and industry to competition, whether from domestic or external forces or both. This remains necessary in order to raise productivity and to promote the efficient use of scarce resources; in part also to prevent powerful vested interest groups from being unduly influential. In too many cases trade and industrial regulations designed to be of a temporary nature have in the course of time created powerful vested interests invariably exerting pressures for perpetuating protective policies of a restrictive kind inimical to overall progress.

It would therefore be advisable to view trade and industrial policies and practices as an integral part of Indonesia's effort to enhance the economic efficiency of her social system. It must be done by the allocation of productive resources which take into consideration the interrelated dimensions of value added, productive employment and balance of payments position.

At this point the author would like to remind all of us again that given the extreme open nature of the Indonesian economy trade expansion is vitally important to overall development. Not only is trade Indonesia's main source of much needed foreign exchange. Trade expansion and relative trade earnings

immediately affect *the total national income*, and in particular the income (and hence remunerative employment) of the larger part of the population engaged in agriculture and agriculture related activities. It is socially desirable and politically important that the incomes of these groups retain their real value. Here trade expansion and a regular flow of goods can make *anti-inflation* policies more effective. Under conditions of trade expansion a resurgence of inflation can be prevented with less monetary restriction. Indirectly, trade expansion will help in combating inflation by weakening and eventually checking the price setting power of domestic and international monopolies.

Empirical evidence concerning developments of Southeast Asian countries such as Malaysia and Indonesia and covering a sufficiently long period of two decades and more, also indicates *a close relationship between income earnings from international trade and domestic saving*, the mainstay among the sources of development finance. Hence, the need to ensure reasonable stability of export earnings at an expanding rate of international trade and to intensify efforts directed at obtaining continued access to external markets.

Furthermore it appears that external trade has a favourable impact on productive employment and income through the creation of jobs that help alleviate poverty in a variety of ways. This tends to help Indonesia in coping with the issue of the "*dependency burden*." Trade expansion would also serve policies to *decrease capital output ratios*, and thus to enable Indonesia to raise her real income within the constraint of limited resources.

It is poor consolation to Indonesia -- and certainly no excuse for not doing what she must do in the interest of her own people -- that on the international scene, too, market imperfections have been aggravated by inappropriate policy interventions characterised by restrictions and constrictions of all varieties. Governments of the leading industrial countries have been in the forefront of those who have deviated from -- and at times blatantly violated -- the ground rules of sound economic strategy by indulging in tactical means of expediency which have mainly turned out, time and again, to be self-defeating. Their economic and political ramifications and attendant recriminations are felt all around us: in the relations between the developing and advanced countries, among and within the regions and groupings of the Third World, and not in the least among the industrially advanced nations themselves.

Within the scope of this essay, the author has confined himself to mentioning one problem area that he sees looming very large on the horizon, viz international indebtedness and suspects that sooner rather than later this will emerge as a burning issue of political economy in the relations between nations.

The debt crises are too numerous to be dismissed as isolated accidents or as involving only a few major debtor countries. Admittedly many developing countries have made serious mistakes and have suffered from inadequacies in their management and economic policies. Yet their present difficulties are also the result of unforeseen external developments beyond their control. They were not anticipated by their creditors either. These include, in particular, the slow-down in growth in the industrial countries, high interest rates and protectionism.

Export earnings of heavily indebted countries are drained off into greatly increased debt service payments. Flows of new lending from financial markets have fallen off sharply and those of concessional aid have declined as well. Developing countries have been forced to make the sharpest cut backs in their imports. The reduction in the current account imbalances of developing economies is mostly due to a reduced deficit in the balance of trade. This was achieved despite a further deterioration in terms of trade. It resulted from a severe compression of import volume in the face of a critical shortage of financial resources. The relative cut backs have been associated with a particularly significant slow down in the growth of output and with increased burdens of unemployment in its various manifestations.

Rescheduling existing debt and availability of new credit are indispensable instruments to prevent collapse. But so far they have mainly bought time and have served as palliatives in the nature of aspirins rather than antibiotics to deal with the source of illness. In most debtor countries the present emphasis on macro economic restraint and tight controls on imports to set aside the resources of debt servicing cannot be sustained any longer. Economic stagnation, massive unemployment and increasing social unrest are indicating the limits of this approach.

From the viewpoint of developing countries adjustment should not mainly be identified with observable improvements in trading and current accounts. It should be stressed that the improvement in trade balance has come about largely through cuts in merchandise imports. Three quarters of all the improvements in their trading balance are due to import cuts. But reduced current account deficits in themselves tell us little about adjustment in any serious sense, if it is based largely on savage reductions in imports by means of emergency administrative controls with adverse effects in the productive system and thus potentially on the ability to export and to produce import substitutes. The more so, if such low import levels are not sustainable.

Adjustment, as the author sees it, implies a change with some permanence into the productive structure. In other words, structural adjustment also means

shifts in the composition of production and demand to increase export earnings and to reduce import dependence. This type of changes has a crucial attribute of being more than temporary, because it is built into production processes. It is more cost efficient domestically and, equally important, adjustment is achieved at a higher level of economic activity.

Adjustment in all cases requires adequate finance. The former is not possible without the latter, and the latter without the former would be infructuous. Adjustment and finance are not in any real sense substitutes one for the other, as is often thought to be made out. If finances are not adequate, adjustment will be of the inefficient kind and will set in motion a vicious circle of low growth, low demand, less resources for constructive adjustment and greater tendency to protect. Adjustment therefore calls for longer term financing than normal IMF programmes and for more quickly disbursing funds than normal World Bank projects. Both institutions have already moved somewhat in the direction required to meet the needs. However, their resources are inadequate. Part of the solution may lie in a new and significant increase in IMF-quotas designed to restore the Fund's resources in relation to world trade to the level of the 1960s. An enlargement of the Compensatory Fund Facility and a reformulation of its criteria may be appropriate measures to improve the liquidity situation of the poorest countries. As for the World Bank, it has responded to the need for structural adjustment lending and more than 40 per cent of its lending is of a non-traditional character. But the need is for additional amounts of medium and long term financing. Substantial increases are required in the bank's annual lending programme and hence in its net transfer. This can be achieved in any one of several different ways, none of which would lead to substantial burdens on the taxpayers of the industrial countries.

The next few years will test statesmen, political leaders and captains of industry as to their political courage, wisdom and ability to base their decisions on considerations of a strategic nature of intermediate and longer term objectives, rather than by being pressed for whatever reasons to deploy tactical steps of short term expediency which seems to have led us so far into a vicious circle.

The Indonesian Business: Present Conditions and Future Prospects

J. PANGLAYKIM

INTRODUCTION

The credit standing enjoyed by the Indonesian government has helped private businessmen in Indonesia to develop their capacity and capability. Although there is a slowdown in economic growth, affecting to a large extent the private sector, national indicators show that an economic stability has nevertheless been achieved.

A drop in the oil prices will affect the 1985/1986 budget, but Indonesia's foreign exchange reserves, other types of reserves, and stand by credits, along with a low inflationary rate of below one digit in 1984 and manageable government debts will temporarily cushion any oil setback. The opinion of the majority of the private business sector is that for at least six months no drastic monetary measures will be taken.

The slowdown in business activities, brought about by a declining purchasing power, has an impact on the production capacity and work force since the industries are operating below capacity. But supermarkets and big clove cigarette factories, which provide consumers's goods, are working at full capacity.

The shift in foreign direct investment from resource-based to more sophisticated industries in the industrialised countries has also an impact on the mood of foreign investors in a developing country like Indonesia. A way out is to attract foreign investors to the export-oriented industries, for which general trading firms, which have already been operating as global traders, department

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stores, which have international networks of suppliers, or a combination of both will seemingly be the most likely candidates.

Although the present situation is rather "cloudy," the dynamism of private entrepreneurs will be able to overcome many of the constraints and the temporary recession Indonesia is now experiencing. A lot of hard work and a change of attitude are necessary in order to come out of the present slowdown business, after which the private sector will have ample room to operate.

This paper will concentrate on the business aspects of the Indonesian economy. Discussions by economists can be found in journals like *The Indonesian Quarterly* and *The Economic Bulletin*, which put out a quarterly survey, in monthly or quarterly publications of analyses, issued by private consultants, and also in the local newspapers and business magazines. People of the mass media also interview businessmen to find out what their perceptions are of Indonesia's economy in general and the business sector in particular.

It is the intention of the author to focus on business development in Indonesia as part of the Indonesian national economic growth and development. In other words, this paper is written from a businessman's rather than an economist's point of view, although there are most probably some similarities in the approaches.

BUSINESS CONDITIONS: A REFLECTION OF THE NATIONAL ECONOMY

Business conditions have always been very much influenced by the growth and development of the national economy. We have seen that from 1968 onwards the business sector has experienced its ups and downs depending upon the ability of the national economy to generate a high degree of growth and development.

The Indonesian national credit standing among the international banking community has benefitted those groupings in the local business community who have access to these financial sources. They have managed to conclude a number of financial deals which enable them to finance their various national projects, so that in so doing they are able to start dismantling¹, what is known in the foreign direct investment sector, as *package deals*.

¹A joint venture between national and foreign partner, in which the foreign partner contribution consist of capital, management, and technology.

When the private entrepreneurs started their operations in 1968, they were not yet in a position to come up with the necessary capital for their hundreds of joint ventures with Japanese manufacturers. However, through the years they have not only acquired knowledge and expertise but also standing in the banking and international business communities, and this has now enabled them to start dismantling the package deals.

If any of them starts a joint venture now, say, a factory manufacturing industrial products that are not highly sophisticated, he will be able to provide capital, technical skill (which he may hire from abroad), and management, thus making him more independent or an eventual foreign partner. This capability, which has been developed for more than 20 years, is a reflection of the country's ability to develop her national economy.

After experiencing a kind of boom period, in which many of the private groupings have started a number of manufacturing ventures in the form of joint ventures with foreign interests, or as national domestic ventures, the national market seems to have reached a kind of satiation. Moreover, the declining purchasing power has affected the growth of the manufacturing sector in such a way that many of them have been operating below their full capacities.

SLOW GROWTH?

The first three years of Indonesia's Third Five-Year Development Plan period (Repelita III) had shown an average rate of growth of between 6.5 per cent and 7.0 per cent. During fiscal year 1982/1983 the Indonesian economy faced a number of problems such as a glut in the world's oil supply which affected the country's earning from oil. The national import sector apparently showed an increase, mainly on account of previous years' commitments and a large number of projects initiated by the government and requiring foreign exchange financing. This affected the national balance-of-payments position, thus putting strain on the country's financial resources. According to a number of sources, the rate of growth of 1982 was considered as zero in 1983 based on 1981 prices. Compared to 6.5 per cent during the first three years of Repelita III; the slowdown had an impact on business activities.

Facing the possibility of a further decline in oil prices, in Indonesia's foreign exchange earnings and in budgetary resources which was also expected which, it is presumed, would continue for a number of years. It was found necessary to take immediate policy decisions which would lay a basis for recovery. Among the important policy decisions taken was the 28 per cent devaluation of the

Rupiah against the US Dollar which affected many private companies that had heavy borrowings in US currency. To make matters worse, there was also a kind of "run" on banks.

The 28 per cent devaluation took the private sector by surprise, because if one borrowed US\$ 10 million off-shore based on an agreement with a dollar clause, one suddenly had to pay 28 per cent more, thus wiping out all possible profits. Furthermore, the government also rephased a number of large projects, which has been approved, thus putting all those involved in a kind of dilemma. This was followed up by a deregulation of the banking industry in order to attract more funds from the public, thus enabling governments-owned banks to set their own interest rates on time deposits based on the free market mechanism, now varying from 16.5 per cent to 18.5 per cent on deposits of from three months to one year. Those set by private banks, both foreign and domestic, are even higher. These new interest rates have an adverse effect on the stock exchange market which promises a return of investment or dividend of around 15 per cent. This deregulation has resulted in almost the "end" of companies planning to go public.

Another policy decision recently taken is a tax reform which is aimed at pushing revenues from taxes to a higher level and increasing the number of taxpayers. This tax reform, which includes a new tariff system and value added tax, has been received with mixed feelings by the public in general. But the government tax officials are determined to make the new tax law operative as of April 1, 1985.

The determination of the government to come up with simplified procedures and regulations has been an effort that has been made a couple of times before, but generally without much success in their implementation. The government decisions will be there and the simplification procedures will be formulated, but the various bureaucrats who have to interpret these simplifications will have their own version and timing and many times without a sense of urgency. Perhaps not much change can be expected if from the structural point of view those who implement these laws still consider themselves as the "rulers" instead of the servants of the public, so that the private sector has just to accept their interpretations. The fact that in the import sector alone one has to pass 34 tables is really not a joke but a fact of life that the private entrepreneurs engaged in the import business have to face. For those in the export sector, the number of tables has seemingly been reduced to 15 which is still a time-consuming exercise for a country that is very much in need of foreign exchange from non-oil exports. With tables is meant here the signature of the bureaucrats in charge of the various parts of the process of completing the documentation for both import and export.

ECONOMIC MACRO INDICATORS

Indonesia's balance of payments in 1984 showed a surplus of US\$943 million in the 1984 calendar year compared to 1983 which was US\$654 million.

Indonesia's foreign exchange reserves on December 31, 1984 amounted to US\$5,751 million. Foreign exchange in the hands of foreign exchange banks was estimated at about US\$4.3 billion, so the national foreign exchange reserves totalled about US\$10 billion. To this US\$10 billion could be added the amount from the IGGI sources which has not yet been disbursed and is estimated at around US\$3 billion. If our information is correct, Indonesia has also signed a kind of standby agreement with a consortium of banks to the amount of US\$750 million. From these figures it can be concluded that Indonesia's foreign exchange reserves look quite promising.

The improvement in the balance of payments is the result of a 3.0 per cent increase in oil earnings which reached the US\$ 11,752 million mark in 1984. An increase of LNG exports of 31.8 per cent amounting to US\$ 3,010 million and an increase of non-oil exports of 19.0 per cent amounting to US\$ 5,943 million. So in the case of non-oil exports, the 1980 US\$ 6 billion mark has not been exceeded yet.² On the other hand, imports of non-oil commodities decreased by 10 per cent from US\$13,896 million to US\$12,496 million. So this resulted in a current account deficit of US\$3,056 million compared to that of 1983 which was US\$6,442 million.

By June 1984 Indonesia's foreign debts amounted to US\$23.2 billion (now about US\$25 billion which is slightly beyond the 20 per cent ratio), consisting of US\$21.6 billion of government debts and US\$ 1.6 billion of debts owed by government enterprises. This did not probably include debts owed by Garuda Indonesian Airways which are not guaranteed by the government and did not also include debts owed by private companies to the international banking community. Approximately 75 per cent of the government debts originated from soft loans and half soft loans (concessionary loans) and the rest from commercial loans from the international banking community.

Credits from the banking sector increased by 24 per cent (Rp 3,636 million in 1984) which indicates that the banking sector had actively participated in the financing of various activities in the economic and business sector.³

²Sadli, M., "Prospect of Industrial Marketing in Indonesia," given to the Faculty of Technology, University of Gajah Mada, 26 February 1985.

³All the figures and notes have been taken from the Governor of Bank Indonesia's Speech, 1 January 1985.

The expected rate of growth of Repelita IV is estimated at about 5 per cent annually after experiencing an average growth rate of 7 per cent during the last 15 years.

THE 1985/1986 GOVERNMENT BUDGET

The business community has been wondering whether the 1985/1986 budget will give a kind of boost to business that has lately been slowing down. It must, however, be noted here that one of the budget objectives is that the fiscal measures so taken should ensure the growth and stability of the country's economy. It is envisaged that the budget will have a 23 per cent increase in its general expenditures and from 18 per cent to 20 per cent in its development expenditures. The 23 per cent increase in general expenditures include the salary increase of civil servants and military personnel, which is about 35 per cent in the case of pensioners and 48.5 per cent in the case of subsidies to civil servants in the autonomous regions.

There are 1.8 million civil servants and military personnel at the central government level and 1.5 million at the regional government level (*Tempo*, January 12, 1985). *Tempo* has come up with the following calculations:

(a) At the central government level, an increase of	Rp	800 billion,
(b) At the regional government level, an increase of	Rp	800 billion,
(c) To personnel in the autonomous regions, an increase of	Rp	244 billion,
Total		Rp. 1,844 billion.

If we include in this Rp 1,844 billion, the price increases to the "paddy farmers," the amount injected into the economy might well be more than Rp 2,000 billion, thus averaging between Rp 160 billion and Rp 170 billion a month. Moreover, if we include those projects called "SIAP" of which the cost that has still to be disbursed amounts to Rp 2,100 billion, the amount injected into the economy might be able to boost the lagging economy. This means that the business community could expect a boost of their activities. However, this will be confined to non-luxury goods only. So those in the food, textile (including garment), and bicycle manufacturing industries might benefit from this increase in the money supply, but those in the electronics or automotive industry might not.

The salary increase of civil servants and military personnel will expectedly come from the increase in revenues from direct taxes. It is said that the new tax law will increase the number of tax-payers which will in turn increase government revenues.

Another aspect that has been carefully watched by the business community is the oil revenue. It is known to many of us that oil prices are now uncertain. A price drop of US\$1 per barrel will mean a decrease in revenues of around US\$330 million. If the worse comes to the worst and a price drop of US\$3 per barrel will become inevitable, a drop in revenues of about US\$1 billion cannot be avoided. But it is said, that the national foreign exchange reserves of over US\$10 billion, undisbursed funds from aid sources of US\$3 billion, and a standby credit arrangement of US\$750 million might cushion a temporary decline in oil revenues. Perhaps a much more uncertain point is the number of oil-importing countries like Japan that have recently started to diversify their resources of oil intake. A decline to about 13 per cent from an import volume of from 15 per cent to 16 per cent of Japan's total oil imports might be quite significant for Indonesia. When Japan was badly in need of oil, Indonesia was considered as a reliable and trustworthy supplier. But times have changed now. A good and helpful "friend" in past is "easily" forgotten. Japan and its big trading companies have now become global oil traders, including the marketing of oil from China. A reduced intake of such a big customer as Japan might affect Indonesia's oil revenues, thus necessitating Indonesia to find new oil customers. South Korea, which was also at one stage helped out by Indonesia in their oil requirements, has now turned to China for its oil supplies. It has to increase its oil intake from China, both for political and commercial reasons.

Normally when the business community expects a decline in the oil prices, rumours of another Rupiah devaluation or adjustment start to plague the economic stability of the national economy. Although there might still be some who are expecting such a devaluation, the majority seem to have come to the conclusion that for at least six months no such monetary measure will take place (See tables on foreign exchange purchases through the Central Bank's exchange). But that the Rupiah is on a managed floating basis is known to the business community. They expect a creeping adjustment of the Rupiah of 5 per cent to 10 per cent in a year's time, based on the percentage experienced in 1984.

Some of the relevant tables of the 1985/1986 budget are included at the end of this paper.

Table 1

FOREIGN EXCHANGE FLOW DURING DECEMBER 1984

Date	Middle Rate	Total of Flows
1	Rp 1,068	US\$ 7,282,809.47
2	-	-
3	„ 1,068	9,300,000
4	„ 1,068	12,700,000
5	-	-
6	„ 1,068	7,000,000
7	„ 1,068	9,953,821.17
8	„ 1,069	6,210,536.07
9	-	-
10	„ 1,069	17,500,000
11	„ 1,069	57,850,000
12	„ 1,069	45,950,000
13	„ 1,069	33,300,000
14	„ 1,069	40,400,000
15	„ 1,069	6,098,555.01
16	-	-
17	„ 1,069	19,150,000
18	„ 1,069	3,909,092.81
19	„ 1,069	6,600,000
20	„ 1,070	4,648,459.94
21	„ 1,071	6,543,783.45
22	„ 1,071	7,801,148.85
23	-	-
24	„ 1,071	-
25	-	-
26	„ 1,072	7,623,108.99
27	„ 1,072	14,300,000
28	„ 1,073	44,495,000
29	„ 1,074	11,900,000
30	-	-
31	-	-
Total		US\$ 380,516,315.76

TOTAL OF FLOWS OF FOREIGN EXCHANGE AND
MIDDLE RATE ON :

1984	Total of Flows (US\$)	Middle Rate (Rp)
January	696,871,587.38	993 - 995
February	279,916,435.16	992 - 995
March	399,939,129.17	992 - 1,000
April	480,000,000	1,000 - 1,005
May	322,097,572.90	1,005 - 1,009
June	351,302,631.91	1,009 - 1,015
July	827,316,301.89	1,015 - 1,027
August	830,294,150.50	1,029 - 1,048
September	717,719,567.95	1,050 - 1,059
October	576,446,727.36	1,059 - 1,061
November	480,094,112.98	1,061 - 1,067

Source : Business News, 2 January 1985

Date	Middle Rate	Total of Flow
1	Rp. 1,075	US\$ 25,550,000.
2	1,075	32,100,000.
3	1,075	57,450,000.
4	1,076	43,650,000.
5	-	
6	1,076	59,000,000.
7	1,077	42,100,000.
8	1,078	30,950,000.
9	1,078	32,100,000.
10	1,079	18,300,000.
11	1,080	4,976,745.61
12	-	
13	1,080	46,800,000.
14	1,081	20,000,000.
15	1,081	11,100,000.
16	1,081	8,050,104.51
17	1,081	25,750,000.
18	1,081	2,915,508.62
19	1,080	
20	-	
21	1,080	16,650,000.
22	1,081	36,550,000.
23	1,081	32,500,000.
24	1,081	24,400,000.
25	1,081	14,450,000.
26	1,082	3,831,615.73
27	-	
28	1,082	14,765,000.
29	1,082	24,300,000.
30	1,082	18,770,000.
31	1,082	7,125,000.
Total		US\$ 654,133,974.47

Source : Business News, 1 February 1985

Date	Middle Rate	Total of Flow
1	Rp 1,082	US\$ 5,304,696.43
2	1,083	3,293,367.35
3	-	
4	1,083	40,554,155.24
5	1,084	49,792,220.70
6	1,084	6,950,000.
7	1,085	11,050,000.
8	1,085	20,850,000.
9	1,086	3,905,218.15
10	-	
11	1,086	29,125,000.
12	1,087	12,400,000.
13	1,088	48,550,000.
14	1,088	43,100,000.
15	1,087	39,805,000.
16	1,087	3,743,703.93
17	-	
18	1,087	9,600,000.
19	1,088	38,700,000.
20	1,089	29,850,000.
21	1,090	7,200,000.
22	1,091	5,245,039.64
23	1,092	4,386,982.70
24	-	
25	1,092	6,450,000.
26	1,093	57,400,000.
27	1,093	8,720,000.
28	1,092	34,700,000.
Total		US\$ 521,070,384.14

Source : Business News, 1 March 1985

1984/85 BUDGET AND 1985/1986 DRAFT BUDGET
(Rp billion)

	1984/85	1985/86	% Change
Revenues			
A. Internal revenues	16,149.4	18,677.9	15.7
I. Oil and natural	10,366.6	11,159.7	7.7
– Oil	(8,895.1)	(9,479.6)	(6.6)
– Natural gas (liquid)	(1,471.5)	(1,680.1)	(14.2)
II. Nonoil and nongas :	5,782.8	7,518.2	30.0
1. Income tax)			
2. Corporate tax)			
3. MPO tax)	2,451.1	3,074.0	25.4
4. PBRD tax)			
5. Sales tax)			
Value added tax on goods and services and sales tax on luxury goods	958.2	1,666.4	73.9
6. Import sales	–	–	–
7. Import duty	681.4	717.1	5.2
8. Excise tax	727.5	963.3	32.4
9. Export tax	123.6	101.7	–17.7
10. Other taxes	150.6	167.4	11.2
11. Regional development	75.4	96.4	27.9
12. Non tax revenues	615.0	731.9	19.0
B. Development revenues (foreign aid) :	4,411.0	4,368.1	–1.0
I. Program aid	39.5	70.9	79.5
II. Project aid	4,371.5	4,297.2	–1.7
Total	20,560.4	23,046.0	12.1
Expenditures			
A. Routine expenditures	10,101.1	12,399.0	22.7
I. Civil service :	3,189.5	4,117.3	29.1
1. Rice allowance	415.7	482.5	16.1
2. Salaries/pension	2,307.9	3,115.8	35.0
3. Meal allowance	286.6	313.3	9.3
4. Other benefits domestic	99.9	116.6	16.7
5. Diplomatic service	79.4	89.1	12.2
II. Goods procurement	1,263.9	1,529.9	21.1
1. Domestic	1,207.8	1,451.8	20.2
2. Foreign	56.1	78.1	39.2
III. Subsidies for autonomous regions	1,784.6	2,590.4	45.1
1. Civil service	1,581.4	2,349.0	48.5
2. Noncivil service	203.2	241.4	18.8
IV. Debt interest & installment	2,686.1	3,559.1	32.5
1. Domestic	30.0	30.0	–
2. Foreign	2,656.1	3,529.1	32.9
V. Other expenditures	1,177.0	602.3	–48.8
1. Oil fuel subsidies	1,147.0	532.3	–53.6
2. Others	30.0	70.0	133.3
B. Development expenditures	10,459.3	10,647.0	1.8
I. Rupiah financing	6,087.8	6,349.8	4.3
II. Project aid	4,371.5	4,297.2	–1.7
Total	20,560.4	23,046.0	12.1

Source : Jakarta Post, 8 January 1985

Table 3

GOVERNMENT'S PROJECTIONS OF
BALANCE OF PAYMENTS
(US\$ million)

	1983/84 (Actual)	1984/85 (Estimate)	1985/86 (Projection)
I. Goods & services:			
1. Exports, FOB	19,816	19,779	21,327
- Oil & natural gas	14,449	13,729	14,318
- Nonoil & nongas	5,367	6,050	7,009
2. Imports, FOB	-16,304	-15,438	-16,634
- Oil & natural gas	-3,489	-3,269	-3,292
- Nonoil & nongas	-12,815	-12,169	-13,342
3. Services	-7,663	-7,587	-8,102
- Oil & natural gas	-3,589	-3,411	-3,727
- Nonoil & nongas	-4,074	-4,176	-4,375
4. Current account	-4,151	-3,246	-3,409
- Oil & natural gas	7,371	7,049	7,299
- Without oil & gas	-11,522	-10,295	-10,708
II. Official loans	5,793	4,359	4,974
1. Program aid	84	58	65
2. Project aid & others	5,709	4,301	4,909
IV. Miscellaneous capital	1,191	341	406
V. Official debt repayment*	-1,010	-1,509	-1,698
VI. Errors & omissions	247	698	-
VII. Balance of payments	2,070	643	273

Note : * Principal payments only

Source : 1985/86 draft state budget

GOVERNMENTAL EFFORT TO REVIVE BUSINESS?

If one observes the various measures taken by the government to maintain economic stability, such as rephasing projects that absorb a great deal of foreign exchange, the deregulation of the banking industry with a view to making the banking industry more autonomous in soliciting for funds from the public, introduction of a new tax law so that one does not have to look for new funds through devaluation in order to create a more healthy source of funds through direct taxes, increase of revenues through policy changes in the tourist industry, reduction of expenditures, reduction in the amount of imports of

unnecessary commodities, and increase of efficiency through simplified procedures. All these fiscal and monetary measures seem to have been aimed at ensuring the growth and stability of the economy.

The business community agrees that Indonesia's economic stability has been well maintained with an inflationary rate of below one digit, i.e., about 9.7 per cent in 1984. But some circles in the business community have commented that this stability has been achieved at the cost of a certain degree of stagnation in business activities.

If we observe the macro aggregates and economic indicators and also the various aspects of the 1985/1986 budget, the government has indeed achieved an economic stability, although it is a question mark whether a growth rate of 5 per cent could be reached if one is to consider the slowdown in business activities. If one takes into account the macro indicators, one may come to a conclusion that there was economic stability in Indonesia in 1984, but again as mentioned in some circles at the cost of a stagnation of business activities. One can, of course, argue that the government policies cannot satisfy everyone in the community. But the problem is that the business sector is the provider of jobs to the millions of workers. If business enterprises have to dismiss those workers, a kind of instability might be the result. That's why the slowing down of business activities might have an adverse effect on the economic stability of the country.

OBSERVING THE BUSINESS SLOWDOWN

As mentioned earlier in this paper, the author's focus will be on the private business community which has been developing as the major provider of jobs to the millions of workers.

The majority of the industries like textile, food, electronics, heavy equipment, automotive, cement, building materials, motor-cycles, tires, cosmetics, plywood and travel seem to have been working below their capacities. For example, some of the enterprises manufacturing heavy equipment, the cost of which runs into hundreds of millions of dollars, and many have been borrowing from dollar and rupiah sources. Perhaps a few industries such as supermarkets and "rokok kretek" (clove cigarettes) manufacturers might not have felt the effect. The supermarkets, for instance, appear to have maintained their position because of the particular segment of customers. They generally cater to permanent income customers who remain their clients. The "rokok kretek" industry seems to have managed well also, the activities in this industry, being confined to such big manufacturers as Gudang Garam, Jarum, and Bentul, mainly on account of the difficulty in obtaining the principal raw materials (cloves) which is becoming more and more scarce. The

medium-sized and small factories find it difficult to create an inventory of cloves owing to lack of funds and storage facilities. Hence, only the big "rokok kretek" factories are "recession free," the medium-sized factories may be forced by circumstances to cease their operations.

CONSUMERS' PURCHASING POWER

The purchasing power of the millions of consumers was on the decline in 1984. Consumers who used to get their income from the so-called commercial crops in the small-holders and agricultural areas seem to have experienced a decline of income because of a slowdown in the exports of these raw materials. For instance, small-holders in the tobacco-growing areas have for years been suffering from declining earnings, so that whatever income they still earn will go in the first place to foodstuffs. This might also be the case in the other agricultural areas like tapioca, rubber, tea and coffee. Perhaps in the rubber and other growing areas some improvement might have been noticeable mainly because of increased rubber exports.

Many of the manufacturing industries will not, under these circumstances, be able to market all their products to the final consumers. Most of their products will remain as inventories in their warehouses, since the retailers and wholesalers will not run the risk of having stocks of products which they cannot sell. So, in order to be able to distribute their products, manufacturers might have to resort to more aggressive methods by allowing the wholesalers and in turn the retailers a three to six months' credit if they are prepared to push their principals' products. Some of them have been successful in pushing their products through the relevant channels, but some might not, in which case they have to extend their credits sometimes to about one year. If they borrow funds from commercial banks at high rates of interest, they have to pay interest from 25 per cent to 30 per cent annually, thus wiping out, in a sense, all the profits they hope to make, not to speak of other expenses in running their factories such as repayment of, and interest on, their foreign borrowings in order to finance their machinery, equipment, licensing fees, etc.

Due to this weak purchasing power many of the manufacturing industries have to reduce their production capacities, some to capacities of only 30 per cent, 40 per cent, or 60 per cent.

IMPACT OF THIS SLOWDOWN

The slowdown in capacity will force them to reduce their workforce. In the beginning they may just work half days and send later a certain percentage of

their workforce home on leave, but they still have to pay salaries to these workers. If matters become worse, they may at a later stage be forced to lay off their workforce, for which they have to ask permission from the authorities. In principle, the Department of Manpower tries to prevent this, but if permission is refused for factories to lay off their workers, the next step these companies will take is to apply for bankruptcy which the government considers undesirable.

Another impact is a slowdown in repayments of debts to banks insofar as they concern operating capital and also in repayments of off-shore debts to foreign banks as well as national commercial banks. Banks will therefore be forced to reschedule some of the repayments and may have to be patient when handling debts in arrears.

Foreign manufacturers will have to wait for the payments of royalties, but many of them will put pressure on their domestic counterparts in order to reach their targets, which means that imports of components and other products from foreign manufacturers will have to continue, as otherwise foreign principals will threaten to withdraw their manufacturing licences. Although according to government regulations they are not allowed to transfer sole-agencies to other interested parties, in reality they can however, put a lot of pressure on their agents such as withdrawing their support to banks like the Bank of Tokyo or, for that matter, discontinuing other financial facilities.

While the slowdown is still taking place, the new tax law will put additional strain on the domestic enterprises, because "value added tax" or "luxury tax" will certainly increase many of their sales prices. With a kind of depressed market, industrialists are wondering whether they can increase their selling prices. The next few months will show whether or not this will be possible, because even the existing sales prices have already gone down. Some of these industries are seemingly more optimistic about the 1985 output of sales. So many of the industrialists are now facing an uncertain period and have therefore to adopt a "wait-and-see" attitude. However, some of them are seemingly in a more aggressive mood.

INJECTION OF MONEY INTO THE ECONOMY

The hope among the industrialists is that the Rp 2.000 billion injection and the disbursement of "SIAP" (Unutilised Budget Remainders) projects at the regional government level will result in some revival of the consumers' purchasing power. As mentioned earlier, this will be possible only in the case of consumers' goods but insofar as durable goods like automobiles, television sets, video tapes, to name only a few, are concerned these will not yet be

affected. The multiplier effect will only be felt after April 1985. If the disbursement of "SIAP" projects is done more effectively, many of the construction industries manufacturing roof-tiles, floor-tiles, bricks, sand, etc., might feel the impact of increasing activities. And if this starts at the regional government level, these activities will stimulate some of those industries at the regional and central level.

BUSINESS SLOWDOWN AND DOMESTIC INVESTMENT

The slowdown in business will have its impact on domestic investments. As indicated earlier, many of the industrialists operate below their capacity. It can be expected that they will not think of expanding their present businesses until they feel confident that they can operate at full capacity or can hope to operate at full capacity within a short time. But many of these industrialists may not think or be willing to embark on new ventures. On top of that, they are also very much indebted, so that they cannot easily borrow money for new investments, because national and foreign financial resources will certainly reject such applications. In other words, it might be difficult to expect the private sector to embark on new ventures in 1985 or 1986. On the other hand, with an estimate of a 5 per cent annual economic growth the government expects substantial investments in the private sector in the more lucrative export-oriented industries. Having this glim prospect in mind, economists appear to be of the opinion that the 5 per cent growth target might be too high. But we are still in our first year of Repelita IV and have still four years to go.

FOREIGN DIRECT INVESTMENTS

Indonesia has been active in promoting foreign direct investments, but the prospects are very dim. Indonesia has been considered by many of the prospective foreign investors as not having created the right climate for attracting foreign investments. Some of the deterrent factors, which they put in their list, could be political risk, inconsistency in the regulations, bureaucratic handling of applications, and other inconveniences insofar as foreign expectations are concerned. Besides, many of the industries have been considered as closed to foreign investments and are sometimes also not available to domestic investment. But probably a much more important reason for not investing in developing countries, including Indonesia, is the shift in direction and focus of foreign direct investors.

If 10 to 15 years ago many of the foreign investors, Japan in particular, were interested in securing their supplies of raw materials from developing countries, they are now shifting their attention to industrialised countries.

There is currently a glut in the supply of raw materials. So they have easy access to any of the commodities like rubber, tin and copper. Their industrial adjustment policy and direction towards advanced-technological industries are directed towards making themselves less dependent upon the supply of energy and raw materials.

This has forced them to shift their attention to well-established industrialised countries like Japan and the United States. Not only have they invested in the United States but are also interested in taking advantage of the advanced technological industries in that country. They are also interested in the development of and continued access to, R & D in the United States. It is not only Japanese companies, which have come to the United States to invest, but many European industrialists are also taking advantage. To support their investments in highly advanced industries, many of the Japanese supporting and services industries, such as banking, have also invested heavily in that country in the service (or banking) and commercial sectors. These developments can be seen in Table 4 which shows Japan's foreign direct investments. Besides this shift from such industrialised countries as Japan and Western Europe, American investors have also turned their attention to the United States. Many opportunities have been spotted in the highly advanced industries and many of the American MNCs have withdrawn their investments in the developing countries, including Indonesia (such as Georgia Pacific), in order to invest their funds in highly advanced industries in their own country. The return of investment in these and other countries in the United States is still attractive and moreover almost no political risk is involved.

What happens now is that the United States has become a nett capital importing country, while Japan has become a matured capital exporting country. Japan's trade surplus appears to have been invested in industrialised countries. This trend is expected to continue, because these countries consider the highly advanced industries as the new engine of growth.

With the domestic aspect and the shifting of the focus of prospective foreign investors to industrialised countries and away from the resource-based countries in mind, one will have to expect that in the years to come foreign direct investments in the traditional manufacturing sector will not, as expected, be forthcoming if one tries to attract foreign direct investments in the form of promotions in industrialised countries.

FOREIGN DIRECT AND DOMESTIC INVESTMENT IN THE EXPORT-ORIENTED INDUSTRIES

As stated earlier, one could most probably think of formulating a programme to attract foreign direct and domestic investments in the

export-oriented industries. This will not be an easy task, and only a detailed programme formulation with a great deal of efforts will perhaps attract investors to these industries. When we look around for MNCs, which may be interested in these export-oriented industries, we will first have to look and consider those MNCs that have already developed as international and global traders.

Our choice, from the point of view of global traders, will be directed towards the Japanese General Trading Firms (Sogo Shosha). They have in the meantime developed a kind of expertise in exporting products from Indonesia to the international world. We are engaged in a survey of the Sogo Shosha as to how far they have succeeded in marketing Indonesian products in the international world. As far as we can judge, they have been quite successful. The range of the amount exported is from US\$60 million to about US\$250 million. The General Trading Firms, which have already been engaged in the development of export of non-oil products from Indonesia, might be the most qualified group to be approached to invest in the export-oriented industries. Next to the Japanese GTFs, the South Korea GTFs (Chaebol) might be the next group to approach, but they seem to have a lot of difficulties with their own government at present with regards to their status and concentration of power in business. They still have to face a number of policies which might have an impact on their operational capability in the international world. Perhaps there are other groupings like the department stores operating in the United States, Japan, and Western Europe, but they by themselves might not be able to establish export-oriented industries in Indonesia, since they already have their suppliers in Japan, South Korea, Taiwan, and Hong Kong. A combination of Japanese GTFs/department stores, and national partners might possibly be interested in setting up export-oriented industries. But the export-oriented industrial programme and formulation should be part and parcel of the country's national export strategy. However, one of the most important constraints in the years to come is the increasing tendency towards protectionism, in particular the new American trade act which might in purpose be similar to "American Incorporation."

SUMMARY

This paper's view is a businessman's view. Business development has always been a reflection of the national economic strengths and weaknesses. The credit standing enjoyed by the Indonesian government has assisted private businessmen in Indonesia to develop their capacity and capability.

After a fast growth period averaging a 7 per cent rate of growth in 15 years, the 1983 rate of growth was almost zero based on the 1981 prices, while an

Table 4

	FY 1981			FY 1982			Aggregate for FY 1951-82			FY 1983			Aggregate for FY 1951-83		
	No. of Invest- ments	Value	%	No. of Invest- ments	Value	%	No. of Invest- ments	Value	%	No. of Invest- ments	Value	%	No. of Invest- ments	Value	%
USA	896	2,354	26,4	859	2,738	35,3	9,995	13,970	26,3	855	2,565	31,5	10,846	16,535	27,0
Canada	65	167	1,9	52	167	2,2	599	1,255	2,4	33	136	1,7	632	1,391	2,3
Total North America	961	2,522	38,2	911	2,905	37,7	10,594	15,225	28,7	888	2,701	33,2	11,478	17,926	29,3
Brazil	53	316	3,5	31	322	4,2	1,215	3,545	6,7	29	410	5,0	1,224	3,955	6,5
Panama	225	614	6,9	260	722	9,4	1,064	2,022	3,8	413	1,223	15,0	1,477	3,245	5,3
Mexico	16	82	0,9	12	143	1,9	207	1,042	2,0	13	121	1,5	220	1,164	1,9
Peru	2	4	0,0	8	185	2,4	91	679	1,3	1	0	0,0	92	679	1,1
Bermuda	6	32	0,4	2	5	0,1	65	410	0,8	3	14	0,2	63	424	0,7
Cayman Islands	1	26	0,3	4	6	0,1	48	215	0,4	1	1	0,0	49	214	0,4
Argentina	12	58	0,6	9	46	0,6	106	145	0,3	2	69	0,8	30	182	0,3
Chile	1	3	0,0	6	13	0,2	50	140	0,3	2	5	0,1	108	150	0,2
Puerto Rico	3	15	0,2	2	6	0,1	37	140	0,3	2	3	0,0	52	142	0,2
Venezuela	6	7	0,1	5	8	0,1	76	129	0,2	-	-	-	37	140	0,2
Antillen	-	-	-	3	31	0,4	28	113	0,2	3	1	0,0	79	130	0,2
Others	28	24	0,3	27	19	0,2	440	270	0,5	28	31	0,4	408	301	0,5
Total Latin America	353	1,181	13,2	369	1,503	19,5	3,427	8,852	16,7	497	1,878	33,1	3,924	10,730	17,5
Indonesia	88	2,434	27,3	84	410	5,3	1,148	7,268	13,7	89	374	4,6	1,237	7,641	12,5
HongKong	178	329	3,7	161	400	5,2	2,002	1,825	3,4	178	563	6,9	2,180	2,387	3,9
Singapore	164	266	3,0	154	180	2,3	1,373	1,383	2,6	184	322	4,0	1,557	1,705	2,8
South Korea	33	73	0,8	26	103	1,3	1,105	1,312	2,5	45	129	1,6	1,150	1,442	2,4
Malaysia	41	31	0,3	77	83	1,1	720	764	1,4	95	140	1,7	816	904	1,5
Philippines	28	72	0,8	19	34	0,4	583	721	1,4	20	65	0,8	603	786	1,3
Thailand	52	31	0,3	66	94	1,2	853	521	1,0	73	72	0,9	926	593	1,0
Taiwan	98	54	0,6	65	55	0,7	1,225	479	0,9	92	103	1,3	1,317	582	0,9
Brunei	-	5	0,1	-	-	-	19	100	0,2	7	2	0,0	26	102	0,2
Others	30	43	0,5	17	25	0,3	316	180	0,3	42	79	1,0	358	258	0,4

Iran	-	0	0,0	-	0	0,0	108	1.002	1,9	-	1	0,0	108	1.003	1,6
Arab Saudi	10	45	0,5	13	57	0,7	73	225	0,4	10	90	1,1	83	315	0,5
Others	7	1	0,0	7	26	0,3	89	139	0,3	11	18	0,2	100	158	0,3
Total Middle East	17	96	1,1	20	124	1,6	274	2.479	4,7	21	175	2,1	295	2.654	4,3
England	49	110	1,2	64	176	2,3	829	2.296	4,3	66	153	1,9	895	2.448	4,0
West Germany	55	116	1,3	76	194	2,5	604	808	1,5	58	117	1,4	662	925	1,5
France	31	54	0,6	35	102	1,3	529	540	1,0	50	93	1,1	579	634	1,0
Netherlands	20	138	1,5	24	73	0,9	201	509	1,0	25	113	1,4	226	622	1,0
Belgium	15	107	1,2	10	64	0,8	202	462	0,9	8	265	3,3	64	601	1,0
Switzerland	12	67	0,8	16	79	1,0	145	337	0,6	20	126	1,5	222	588	1,0
Luxembourg	5	104	1,2	6	127	1,6	56	336	0,6	31	37	0,5	176	373	0,6
Spain	11	39	0,4	11	19	0,2	111	231	0,4	19	52	0,6	129	283	0,5
USSR	-	-	-	-	-	-	6	193	0,4	-	-	-	6	143	0,3
Irelands	7	21	0,2	2	6	0,1	50	176	0,3	2	3	0,0	52	179	0,3
Italy	9	28	0,3	11	19	0,2	109	114	0,2	12	13	0,2	121	127	0,2
Others	15	14	0,2	17	17	0,2	181	145	0,3	25	17	0,2	206	162	0,3
Total Europe	229	798	8,9	272	124	11,4	3.023	6.146	11,6	316	990	12,2	3.338	7.136	11,6
Liberia	68	466	5,2	69	434	5,6	483	1.692	3,2	54	323	4,0	537	2.015	3,3
Zaire	6	12	0,1	5	11	0,1	56	267	0,5	-	15	0,2	56	282	0,5
Nigeria	4	1	0,0	5	2	0,0	83	156	0,3	3	1	0,0	86	157	0,3
Zambia	2	55	0,6	1	20	0,3	15	120	0,2	-	-	-	15	120	0,2
Others	24	39	0,4	19	22	0,3	286	274	0,5	8	24	0,3	295	298	0,5
Total Africa	104	573	6,4	99	489	6,3	923	2.507	4,7	65	364	4,5	989	2.871	4,7
Australia	108	348	3,9	138	370	4,8	972	2.882	5,4	95	166	2,0	1.067	3.048	5,0
New Zealand	41	56	0,6	50	31	0,4	178	212	0,4	22	11	0,1	200	223	0,4
PNG	16	7	0,1	11	10	0,1	159	177	0,3	9	3	0,0	168	180	0,3
Others	22	13	0,1	13	10	0,1	169	98	0,2	16	10	0,1	185	109	0,2
Total Oceania	187	424	4,7	212	421	5,5	1.478	3.370	6,3	142	191	2,3	1.620	3.560	5,8
TOTAL	2.563	8.931	100,0	2.552	7.703	100,0	29.063	53.131	100,0	2.754	8.145	100,0	31.814	31.814	61.276

Note : Countries listed are those receiving a total of at least \$ 100 million in investment over the years from 1951 to 1982.

Source : EXIM Review, Research Institute of Overseas Investment, The Export-Import Bank of Japan, vol 4, no 2, 1983, p. 6

average rate of growth of 5 per cent is expected in Repelita IV. The slowdown in economic growth has had an impact on the Indonesian business community

The right policies have been formulated and implemented, namely, the rephasing of hundreds of projects which absorb too much foreign exchange, deregulation in the banking industry, imposition of a new tax law, and control of expenditure. The national economic indicators, such as the Indonesian foreign exchange reserves, which have exceeded the US\$10 billion mark, other types of reserves and standby credits, along with a low inflationary rate of below one digit (9.7 per cent) and manageable government debts, amounting to US\$23.2 billion, of which 70 per cent are concessionary and half concessionary loans, show that an economic stability has been achieved.

The government budget is aimed, among other things, at increasing the country's stability and growth which include an endeavour to boost the slowdown in the business sector. The injection of around Rp 2,000 billion and the speeding up of disbursement of "SIAP" (Unutilised Budget Remainders) projects, estimated at around Rp 2,108 billion, will be expected to boost the business sector. But not all industries will benefit from this injection. Consumers' goods and construction materials industries might probably benefit from them, but not consumers' durable industries such as the automotive industry.

The slowdown in business has had an impact on the workforce. Some of them have been laid off since the industries have been operating below their capacity. But supermarkets and the big "rokok.kretek" (clove cigarettes) factories of Gudang Garam, Jarum, and Bentul are perhaps exceptions, because they have been operating at full capacity. The main reason for this slowdown in business, which has not only affected the workforce but also banks, is the weak purchasing power of the millions of consumers.

The slowdown in business activities and the reduced purchasing power of consumers have broken up the flow of goods and flow of money. It is hoped that the injection of trillions of dollars might regulate these flows back to normal. Although this is the case, some constraints such as the new tax law, comprising value added tax and luxury tax, might still be there. This might increase the prices of commodities, so that an increase in the sales prices might affect the ability of the industries to get out of the slugging business situation.

The slowdown in business, which has resulted in the under-utilisation of the existing production capacity, might prove to be the biggest constraint to the industrialists to think of expansions or making new investments. They will wait until the situation becomes clearer and until that time their factories are not operating at full capacity.

The shift in foreign direct investments from the resource-based to the more advanced-technological industries in industrialised countries have an impact on the mood of foreign investors in the developing countries; including Indonesia. Japanese, American, and European prospective investors are now concentrating in the highly advanced technological industries which they consider as the new engine of growth. Investments seem to have been concentrated in the United States. This country has become a net capital importing country, while Japan has become a matured capital exporting country. This trend will apparently continue in the years to come.

The only possible attraction is that we should concentrate in developing a well thought-out and detailed programme on how to attract investors to the national export-oriented industries. In this context the author is of the opinion that only those MNCs which have already been operating as global traders might be interested in the possibilities and opportunities that will be provided by the programme of investment in the export-oriented industries. The seemingly logical candidates will be the General Trading Firms (Sogo Shosha and Chaebol), which have already developed an expertise in global trading, the department stores, which have international networks of suppliers, or a combination of the GTFs and department stores.

Although at present the picture might not be too bright, the business world is, however, full of challenges and the dynamism of the entrepreneurs will be able to overcome all those constraints and the temporary recession which Indonesia is now experiencing. Again, although within the next year or two, the business world will have to face a number of constraints, among other things the new American trade act; we are however confident that this all will be seen as challenges. New opportunities will arise if Indonesia succeeds in implementing its export-oriented industrial programme. But a lot of hard work and a change of attitude will help Indonesia be successful in the international business scenery. Once the export target of US\$30 billion is set, for the next 15 to 20 years the private sector will have ample room to operate.

Indonesia's Energy Policies in National and Global Perspectives

SUBROTO

I

The basic concept of Indonesia's energy development policy is to fulfill the domestic energy demand as its first priority and secondly whenever possible to maximise its use as a revenue earning commodity. This basic concept has been dominating all the steps taken since Indonesia's independence 40 years ago. This can be considered as an interpretation, to Indonesia's 1945 Constitution, which in article 33 states that all natural resources should be governed by the state for the greatest benefit of the Indonesian people. Although governed by the same guideline, as time goes by one can observe a different attitude in different phases in Indonesia's history.

In the early part of Indonesia's history after independence up to 1965, in a period of what is now better known as the "old order" regime, nationalistic feelings were very high and there was also fear for foreign capital domination due to Indonesia's perceived or real inability to handle it, which influenced the efforts to develop Indonesia's natural resources. It sometimes expressed itself in a non-realistic attitude as seen by outsiders and therefore not conducive to attracting foreign participation. This did affect Indonesia's energy development activity, including petroleum operations. It was only at the end of this period, that a more conciliatory atmosphere towards foreign capital was considered "safe." In recent Indonesian history, since the present new order government, a more realistic attitude can be observed. Even before the new order government's open door policy statement on foreign investment in 1967, oil production sharing contracts were signed earlier in 1966. It is this change of attitude towards foreign investment that made Indonesia's present petroleum development policy possible.

II

Indonesia's petroleum development policy is based on a fair sharing principle adjusted to the prevailing conditions. The first generation of Indonesia's production sharing agreements was based on a 40 per cent maximum cost recovery and a 65/35 sharing of the after cost operating income in favour of the state, while the management of this operation is in the hands of the state oil company. This so-called "management clause" guarantees the state's direct involvement in the development of a strategic resource. The percentages used were fair and proper for the then prevailing oil prices. But it had also the distinct advantage of avoiding the then very difficult problem of deciding at what price oil was to be valued. This centred around the matters as regard what value to give to cost oil which the oil companies have the first right to take, except in the case where the state oil company can sell this cost oil at a higher price than the oil company can match. This price, at which cost oil is determined, is considered the price of this particular crude. By using this mechanism Indonesia succeeded in determining the price of this particular crude. By using this mechanism, Indonesia did avoid the most difficult problem of the late sixties and early seventies, which was that of fixing the price.

Changes in the world energy situation in the seventies have brought about changes in Indonesia's production sharing conditions. Because of the change in the value of the oil produced no longer could the 40 per cent maximum cost recovery and the old percentage sharing of the crude produced be applied. The 65/35 split has been replaced by an 85/15 or even an 88/12 split, a change justified and accepted by the oil companies. Because of the oil companies' home country's tax requirement the maximum cost recovery was eliminated and acceptable accounting principles were used instead. However, despite cost recovery has now been calculated on the basis of accepted general accounting principles and companies are to pay taxes in Indonesia, the principles of the original production sharing, or fair sharing however, are still very much applied, as these changes did not affect the attractiveness of joining the search for oil in Indonesia. There are at present 66 effective production sharing contracts working in 73 areas in Indonesia compared to 43 effective contracts working in 61 areas in 1976 when those changes were discussed with the oil companies. Another useful yardstick which can be used may be to note that the total oil expenditures were US\$0.64 billion in 1976 compared to US\$2.80 billion in 1984. New contracts were below the average last year and even this year. This is not however due to the lack of interest shown by foreign oil companies, but was rather regrettably due to the delayed adjustments in Indonesia's new 1984 tax laws pertaining to the exploration of petroleum, which are now already finalised.

All these efforts also reflect the government's continuous desire to invite foreign capital to joint in the search for natural resources in Indonesia. This policy is actually more or less forced upon Indonesia by the need to use almost all revenues generated from the exploitation of petroleum and other natural resources to fund her development efforts implemented through consecutive five year development plans up to the end of this century. It is expected that by that time, a continuous growth will require an even larger capital outlay. It is in a way an implied guarantee for the oil companies that their operation in Indonesia is something the government cannot afford to lose as it has a self interest to protect their existence.

The government does however allow Pertamina, the state oil company, to plow-back its income in exploration and exploitation activities as Indonesia needs to have an able and fullfledged national oil company to supervise the operations by foreign oil companies. A paper oil company would never be able to perform that function effectively. Pertamina is today an oil company in its own right. It owns facilities to produce over 100,00 barrels per day of oil, it is selling some 300 million cubic feet per day of its own produced natural gas, own some 800 thousand barrels per stream day refining capacity and 17 million tons per year gas liquefaction facilities and is distributing about 450 thousand barrels per day of fuel in the domestic market with a tanker fleet of about 3 million dwt capacity. It is this background of its own operation that enables Pertamina to speak in the same language in discharging its obligation to supervise the oil company's contract operations.

As a result of this open door policy, Indonesia's production rose within a decade from 510 thousand barrels per day in 1967 to 1.7 million barrels per day in 1977, contributing towards a stable supply of crude oil in the Western Pacific region. It contributed not only in increasing deliveries to Japan during the crisis year 1973, but also to the US west coast, preventing brown-outs. Indonesia did not joint the panic spot price setting of that period. Preferring a moderate attitude and guaranteeing deliveries to term buyers at official established prices Indonesia believes that her responsible action did have a stabilising effect on the market. Indonesia has a vested interest in an orderly world economy as her other export commodities are very much dependent on the healthy economy of the world at large. Also this is due to the fact that Indonesia's development efforts are in a way directly linked to the assistance of the industrialised world. It is also with this in mind that Indonesia, for instance, felt that it could not joint the OPEC threat of an embargo in 1971. This policy is still valid today as it was 15 year ago.

On the domestic scene Indonesia's energy policy up to 1978 was more or less limited to provide "affordable" fuel product, especially kerosene for

household use. This policy and the cross relation between the different fuels caused the average domestic fuel prices to be very low requiring huge government subsidies. As a result fuel oil consumption grew very fast at an average rate of about 13.6 per cent per annum. This rate of growth in domestic oil consumption is considered very dangerous as it could cause Indonesia to cease to be an oil exporter should all oil produced be required to fulfill the increasing domestic demand.

The government therefore has since 1978 implemented an energy policy based on developing alternative energy sources. In degree of priority, the first to be developed and used are the non-exportable energy sources such as geothermal and hydropower. Following that is the less exportable coal and after that the then better exportable natural gas. Oil should ideally be the balancing source of energy reducing its use as much as possible. The limiting factors was the fact that there was at that time practically no geothermal sources being developed and coal production was less than one half million tons, while the existing hydropower was mostly based on multipurpose water utilisation programmes which need long lead-times to develop. These factors however did not inhibit the government to face the challenge.

Now 7 years after implementing the energy policy, a 30 MW geothermal plant has been completed while the installed hydropower generating plant capacity has increased by 27 per cent, or about 800 MW. A new 800 MW coal fired power plant soon to be expanded to 3,000 MW, has just been commissioned. Meanwhile coal production has reached 1.5 million tons, which will increase to about 10 million tons before the end of this decade.

The most remarkable development, however, was in the oil consumption. In 1982, forced by a growing subsidy requirement, the government increased the domestic oil prices for the third time. This increase of about 60 per cent, brought the oil prices for the first time at a higher level than the 1970 prices on a constant basis and the effect was immediately felt. Oil consumption growth fell from about 13.6 per cent to about 3.1 per cent. When in 1983 the government again raised the prices of oil by another 60 per cent, the actual consumption dropped by about 0.2 per cent -- the first time in history of negative growth! In the last two years oil consumption has risen by less than 1 per cent annually. This development in oil consumption, coupled with the development and utilisation of alternative fuels, have reduced the oil share in the domestic energy mix from 81.8 per cent in 1978 to about 72.4 per cent in 1984, which by the end of Indonesia's current five year development plan in 1989, will hopefully be about 62.4 per cent. The positive oil price development was not foreseen when Indonesia sets the strategy of her energy policy. In the end it is however the result that counts and in this respect Indonesia's energy policy has been quite a success story.

Indonesia's energy policy, as time goes by, also faces the same fate, that of changing conditions in a relatively short span of time. Like any other energy related plan and forecast Indonesia's 1978 policy was basically energy supply centred: she should by all means develop alternative energy sources to replace oil, as oil was then thought to be a short supply commodity which could demand premium value in the export market while within the alternative sources, the utilisation of non-exportable energy sources should be maximised. The "oil glut" situation today seems to have developed a new perception that there is no justification to continue to do so and that the present energy policy should be changed into a more economically based approach, meaning that the least cost approach should at present be the dominating guideline. Pressures in that direction are building up but so far the government still believes that the present course should be maintained.

Development of non-exportable energy sources should still be actively pursued for coal, for instance, because coal if exported, can still earn the much needed foreign exchange. The same is true for oil, because oil export is still and will still be in the foreseeable future, the mainstream of Indonesia's foreign exchange earnings. The present depressed oil demand may still continue for some years to come, but it is expected to revive by the end of this decade. For this reason Indonesia should prepare itself to reap the benefits from it.

Another new development, and perhaps a more pressing question facing Indonesia's present energy policy is that of the utilisation of her natural gas resources. While in 1978 limited gas reserves and a seemingly bright gas export market placed the domestic utilisation of gas behind coal, under today's circumstances however, the conditions are actually reversed. New large gas reserves are continuing to be discovered, while at the same time the outlook for export possibilities are diminishing. If exported gas could demand a relatively higher price than coal, but coal, although at a lower price, can still find export outlets. This change of conditions as can be seen today is not of a temporary nature. Indonesia may therefore be forced to accept this fact and place the utilisation of gas in the domestic market in the same priority scale as coal, or even reversing the existing priority.

III

Natural gas was used for the first time for domestic industrial purposes in 1964 when some 13 million cubic feet of gas per day was delivered for the processing and power generation of Indonesia's first urea fertiliser plant in Palembang, in the southern part of Sumatra. It has however only been in the last 15 years that it has taken an ever increasing share in the Indonesian energy scene.

The utilisation domestically of it, aside from normal field uses, was then already some 24.3 million cubic feet per day, which today stands at about 3.6 billion cubic feet per day, which means an increase of almost 150 times. Export of gas however was then considered a very remote possibility since the available gas reserves were simply not enough. But two big discoveries since then in Aceh, in the northern part of Sumatra and in East Kalimantan, have changed all of that.

At the same time Japan was developing a policy to look at natural gas as a clean fuel bridging the changes from oil to nuclear energy, opening market possibilities which could be utilised. The impending shortages of natural gas supply then expected to happen in the west coast of mainland USA by the end of the seventies was also fast influencing the perception of the gas utility companies in California. To get the greatest benefit from these possibilities a coordinated effort was to be made as gas exports not only missed the flexibility of oil export but required huge capital investment. It brought with it some principal questions, which would influence its long term scene.

The gas field in Arun, Aceh was discovered by a major oil company while the one in Badak, in East Kalimantan by a then relatively unknown independent oil company, both working under a production sharing contract with Pertamina. The first major decision and the toughest to implement was, that regardless of in whatever form the gas was to be exported, it all should be kept in one hand, Pertamina's. The reason behind that principle is that Indonesia cannot afford her gas to compete with other Indonesian gas while large investments were at stake. Even under the then still prevailing conditions, it was not difficult to persuade an independent company to accept that, they were even happy about it. But it took a much longer time to convey that wisdom to a major oil company which eventually acceded.

The second big decision was that the plants should be owned by Pertamina as it is considered a logical consequence of the first decision. On the technical side, Pertamina decided that it would be more desirable to export LNG rather than methanol, as the technology required to produce methanol in big quantities was not yet proven. This risk could not out-weigh the advantages of the cheaper and readily available transport through normal crude oil tankers. At the same time Pertamina decided not to engage itself in LNG transportation as ownership and operation of sophisticated cryogenic ships is a too risky business and being outside the scope and ability of Pertamina. LNG is basically to be sold on a FOB basis. The first LNG sales contract signed by Indonesia, but after 12 years yet to be implemented, was a FOB sales to the US west coast. Upon insistence of the LNG buyers in Japan the second sales con-

tract was on a CIF basis in which, Pertamina was only arranging the transportation by a third party. The whole transportation cost was passed on to the Japanese buyers. Admittedly this arrangement caused Pertamina to bear the additional calculated burden of boil-off and insurance. This additional burden however was minimal considered as a precondition for the first sales to Japan.

Indonesia is proud today that results have shown that the decisions taken proved to be the right ones. Within 8 years after the first shipment in 1977, Indonesia today is the biggest exporter of LNG, with 9 operating trains producing at a rate of more than 100 per cent of its design capacity. The tenth train will be operational at the latter part of 1986.

In the business part of the deal, namely the price of LNG, Indonesia believes that gas is just another hydrocarbon source of energy and as such should be priced in relation to the price of crude. The big question to start with was where to put this relationship: whether on a FOB basis, a landed cost basis, or on the burner-tip. The buyers obviously want to put this relationship on a burner-tip basis while sellers want it on a FOB equivalency. The end is always a compromise between the two extremes, however, to which end it is nearest depends on the negotiating skills of the parties.

In the case of Indonesia, she was lucky in that the first Japanese sales contract was concluded in December 1973, just two months after the Arab embargo. It was believed that it was the first LNG sales-contract which has a landed price-tag of over US\$1.00 per million BTU, US\$1.29 to be precise. With an assumed transportation cost of US\$0.30 per million BTU the FOB equivalent was 96 per cent of the then prevailing price of Sumatra light crude. Fluctuations of the crude price are reflected 90 per cent while the remaining 10 per cent is a fixed 3 per cent annual escalator. During the course of its short history this formula at one time gave the seller a better deal and at other times has favoured the buyers. But the most important fact today is that, both sellers and buyers, feel that they have agreed on a fair pricing formula which should be kept as it is. Later contracts were agreed on a 100 per cent crude fluctuation formula.

Another important part of the business deal was that to safeguard the repayment of the huge capital invested in the liquefaction plant the buyers agreed on a "take and/or pay" clause. There have been many discussions on this 100 per cent take and/or pay clause. The buyers eventually accepted the need of this provision. Another aspect of LNG sales is that all the sales agreements are concluded for a minimum of 20 years. This long-term sales contract is required by all the parties concerned because of the huge investments involved in the liquefaction plant and transportation facilities as well as in

the receiving end. The long-term contract in itself is also an additional welcome safeguard for the Indonesian income as LNG today has grown into Indonesia's second biggest export commodity after oil and condensate.

LNG however, is basically a regional export commodity. The future growth in the Western Pacific region very much depends on the Japanese attitude towards the future use of LNG. A MITI forecast of November 1983 foresaw a continuing decline of natural gas' share in the Japanese energy mix after 1990. Other countries in the region which in the medium time frame have the ability to absorb LNG are very limited, which are perhaps only South Korea and Taiwan. Indonesia is not very optimistic about the sales to US west coast, even after the end of the present so-called "gas bubble." So the future may not see a continued spectacular growth in Indonesia's LNG export. Indonesia is, however, still confident that she will have additional sales which warrant the construction of at least another two trains within this decade because Indonesian LNG is very competitive compared to other sources as the distances are very short, while technically, a ten-train two plant-side source of supply provides a security which no other plant or country can match. But compared to the gas reserves Indonesia possesses today, this additional utilisation will be relatively small. That is why Indonesia has to be more "inward looking" in her future efforts to utilise her abundant gas reserves.

IV

Unlike LNG, oil is not a regional commodity, at least not anymore. Low prices and relatively high transportation costs in the past have somewhat limited the movement of oil. But the introduction of VLLC's replacing T-2's and the increase of crude prices have changed all that. Indonesian crude finding its way to Europe is not impossible under today's condition. Despite all that, however, Indonesia still believes that her "natural market" lies away from the Middle East, but towards the North and the East, such as the Philippines, Australia, Taiwan, Korea, Japan, Hawaii and even as far as US west coast. About 67 per cent of Indonesia's crude export today is shipped to those destinations. As Japan is the biggest oil consumer among those countries, it should therefore not be surprising that Indonesia is putting a lot of effort to cultivate and maintain its sales there. In 1965, Pertamina established a marketing outlet in Japan, owned 50 per cent by Pertamina and the other 50 per cent by 21 of the then potential users of Indonesian crude. This joint venture, the Far East oil trading company, proves to be a very useful tool in developing and promoting a market for Indonesia's crudes. Another marketing subsidiary, the Japan Indonesia oil company, was established in 1972 for the same purpose, to enlarge the number of the participating companies. The marketing in other East Asia areas and US west coast is entrusted

to Perta oil trading company, another Pertamina subsidiary. Indonesia believes that being directly involved in the market is the best way to understand its mechanism and to assess the real situation.

In entering the Japanese market in the late sixties Pertamina had to face the well established major oil companies, who with their partial ownership in major oil refineries, were hard to beat. But Far East oil trading company was able to market Indonesia's crude as an under boiler fuel, while Pertamina entered the Japanese market through the power companies. It turned out to be a very beneficial partnership for both parties involved, and still continues to be so after more than 18 years. Pertamina guaranteed deliveries during the difficult years in the seventies, while the power companies were and are still the most loyal crude buyers. It is this pattern of relationship that Pertamina has been trying to establish for all its customers. It is of course not always successful, but in general it can be said that good relations do exist and have paid off. Diversification of markets is also a part of Pertamina's market strategy, but market realities have limited Pertamina's choice to the only two big consumers, Japan and the USA. Of course other smaller consuming countries may somewhat reduce this dependency, but even combined their requirements remain relatively small.

As a member of ASEAN Indonesia is also committed to an ASEAN emergency oil sharing scheme. But as Malaysia, Brunei Darussalam and Indonesia, 3 out of the 6 ASEAN members, are oil producing and exporting countries, the need therefore is in reality limited only to Thailand and the Philippines. Singapore, being an island with a small oil consumption and with refining and trading facilities, does not really feel the need of it. The emergency sharing scheme among ASEAN nations does not only apply in time of shortages, but also in time of glut. Without triggering off the scheme, even before today's glut, Thailand and the Philippines were already buying Indonesian crude on a commercial basis. The ASEAN emergency sharing scheme should be viewed more as a political manifestation of solidarity in energy matters.

V

In the pricing of crude oil, Indonesia's policy is in line with actions taken by OPEC. Indonesia believes that as an owner of scarce natural resources, she is entitled to receive a fair share of its realistic value. OPEC was established in 1960 with the purpose to fight against the erosion of the government intake from oil operations in their respective countries. Indonesia joined OPEC in 1962, two years after its establishment. OPEC's first target was to recover from the latest reduction of government intake in August 1960. It took more than 10 years before that happened in Teheran in 1971. The so-called

"Teheran Agreement" did also call for modest annual increases until 1975. It was more or less an effort to maintain the purchasing power by adjusting the prices with the expected inflation rate which was later further adjusted to the dollar devaluation. Market realities however overtook all these plans. The Arab oil embargo in October 1973 and the then prevailing market perception of shortages, had caused panic buying by the consumers resulting in market disruptions and consequently an increase in prices. This was a normal market phenomena in which OPEC had no hand. In 1979 for the second time OPEC did some sort of gradual adjustment to again maintain the purchasing power. The Iranian revolution caused another panic buying in the market. Here again, the market led oil producers, OPEC and non-OPEC alike, were to increase their selling prices.

Although Indonesia did not join in the panic price setting, such as US\$40 -- or more per barrel, she did however, follow the market trend in concord with other OPEC member countries.

Worth mentioning were some interesting points contained in World Bank's *World Development Report of 1984*. The report contained an analysis of the origins of the 1980-83 world recession, pointing out that the oil price rises of 1973 and 1979 were not the major causes but government policies were. At the root of the problems of inflation, unemployment and slow growth are the rigidity of the labour market in the industrialised nations and government policies on public spending, taxation and fiscal deficits. The oil price rises of 1973-74 and 1979-80 acted to aggravate these difficulties requiring adjustments that the industrial economies found difficult to make efficiently.

It was the industrialised nation's policy on unemployment and willingness to squander huge sums to protect jobs in uncompetitive industries that the World Bank found particularly harmful to the world economy. Developing countries are hit by such policies from two sides, the subsidies fuel government deficits driving up interest rates and compounding the problems of debtor nations; while protectionist policies rob developing countries of the most effective vehicle for economic growth, the development of viable export industries.

The current troubles of the large debtor nations are the result of high interest rates and a strong US dollar. Debtor nations found themselves facing rising interest payments at a time of declining revenues from exports.

Interestingly enough the report noted, that the distortions caused by the oil price increases have been most severely felt in the oil-exporting countries themselves. The downturn in world oil markets revealed how fragile were the development patterns of the oil exporters. The report concluded that in the

early 1980s most of the oil exporters non-oil economies were far smaller than they would have been had their growth trends in 1967-72 simply been extrapolated.

VI

OPEC in its 25th anniversary this year has been blamed for almost all evil happenings in the global energy scene for the last 15 years. It is inevitable that it would have been the case, had one only looked at the rising crude prices. What is usually overlooked is that non-OPEC countries, due to their combined higher production, are benefiting more than all OPEC producers together. Also overlooked are the positive results price increases have given the world. Those price increases have actually acted as a catalyst in the acceleration of worldwide conservation efforts, exploration of frontier areas, and the development of alternative energy sources.

Increasing oil prices triggered more conservation efforts which originally were thought to have only onetime effect. Continuous efforts by consumers to be more energy efficient forced upon them by high oil prices, however started to bear fruits. More fuel-efficiency in new cars and airplanes became the standard requirements while more fuel efficient processes and equipment started to replace old industrial plants. The span of time needed to reach the full effect of the conservation measures was much longer than originally anticipated and has apparently not as yet been reached. The overall world energy demand, especially that for oil, has yet to recover from its continuous decline. Exploration of frontier areas such as the North Sea, were made possible by high crude prices.

Price increases also stimulated the search and development of new sources of energy such as tar sands and oil shale, but the ensuing price decreases in the early eighties were sufficient to kill most projects.

OPEC today is perhaps facing the most difficult time in its history. Never before has it faced such a difficult situation as that which confronts it today. A confrontation faced not only by OPEC or all oil-producers but by the world at large. Decisions taken today may well have a crucial impact on one's future energy scheme. At least until well into the early part of the 1990s.

The imbalance we are facing today in the supply and demand equation was in the beginning caused by conservation and better efficiency in the use of energy. The unpredictable release of stocks has added to the confusion. However, the prime source of this imbalance today is the non-OPEC production.

The present feeling of security due to the over-supply situation, may cause most of the consuming nations to continue to develop an attitude which in the not too distant future may work like a boomerang. It looks indeed, viewed from the public's prospective, as though the comfortable situation is here to stay. Many articles chanting the demise of OPEC, the "perceived source of all evil," can only encourage this opinion.

But be it as it may, let us look ahead and try to understand what can happen in the not too distant future, using one's present perception of supply and demand and the interplay of prices.

VII

Let us first consider the demand side. Today's demand is very low compared to what it was predicted to be when we were facing the shortages predicted in the early seventies, even before the "first oil shock" of 1973. The US alone was predicted by a 1972 study of the reputable energy economics division of the Chase Manhattan Bank of needing some 30 million b/d of oil by 1985, of which some 15 million b/d would have to be imported. That is more than what all of the OPEC countries actually produced in the third quarter of this year. Leaving that and other similar predictions aside, all of which indicate more or less the same magnitude of figures, the fact today is that world oil demand, although already showing some increasing trend, is still marginally less than what it was in 1973. How does one see this demand growing, say from now until the year 2000?

Here one steps onto dangerous ground and like the earlier mentioned Chase Manhattan prediction, may completely be off the track on account of the changing situation expected to develop by that time. It is speculated that the commonly accepted wisdom today is that oil demand will continue to grow, albeit at a slow rate. Whatever the slight divergencies between them, all the forecasts for world energy demand from 1985 to the year 2000, are remarkably similar. Looking at the most reliable studies prepared by companies and organisations such as the world energy congress, Exxon, Conoco, Chevron, Shell, Texaco, TEA and petroleum economics Ltd. -- all indicated that demand will increase.

A rather conservative estimate was contained in a study made by the London Economics Limited, which predicts a world oil demand (excluding OPEC's) of 48-50 million b/d in 1995 and of 50-52 million b/d in the year 2000 for a price range between "stable" and "an initial erosion, stabilised afterwards," compared to today's 46 million b/d oil requirement. Chevron, Con-

oco, and Texaco are forecasting about 55 million b/d oil demand by the year 2000. A further look into the different forecasts indicates that the growth in the developing world will be greater than in the industrialised countries.

On the supply side, the different studies indicate that the non-OPEC production will reach its plateau around the end of the eighties or early nineties, depending on the price development within this span of time. OPEC production is forecasted to fall somewhat in the early stage and will gradually increase towards the end of the decade. Most studies however, concur that whatever is required to fulfill the demand in the nineties would have to come from OPEC countries. The consequences of these scenarios may be such that all of us will have to look jointly for acceptable solutions, or the world may otherwise have another crisis at hand within the next five or six years ahead.

Let us look at what is happening today. The over supply situation we face today was in the beginning caused by the successful implementation of conservation and improved efficiency in the energy use, followed by the further development and use of alternative energy sources. The unpredictable release of stocks has added to the imbalance. However, the prime source of this imbalance today is the continuous increase of non-OPEC production.

Oil prices were and still are obviously the immediate victim of this imbalance which has a snowballing effect. Owners of surplus stocks released more of their oil to prevent losses in the value of their oil. The same perception has also limited the general trade in oil, which was waiting for tomorrow's oil which might be cheaper than today's.

Although, as referred to earlier, the non-OPEC countries have together reaped greater benefit than OPEC countries from stronger oil prices, it was OPEC that acted in an effort to resolve this situation. OPEC has assumed the responsibility for trying to balance the supply and demand equation through reducing its oil flow into the market by imposing production ceilings upon its member countries. Take it for granted that this was also in OPEC's own interest, a continuing decline in demand and a continuing increase in non-OPEC production however, could strain OPEC's ability to accomplish that objective by itself which is being done at a great sacrifice to the economic interests of its member countries.

A continuous decline of oil prices is definitely not in the best interest of OPEC member countries. But there always has been a difference of opinion as to whether or not such a continuous decline of oil prices is in the best interest of the industrialised world as well. The effects on the banking systems and oil companies are usually considered negative with world-wide repercussions.

Most politicians in the industrialised countries however see the declining oil prices as a desirable political goal. Many statements to that effect have been made, such as the desirability of a US\$25 per barrel oil price, or an even further decline by another US\$5. A speedier economic recovery has been predicted if oil prices could decrease even more. It is worthwhile to note, however, that the recession in the seventies started before the sharp rise in oil prices and that the relapse of the recent economic recovery happened just as oil prices went down.

A continuous decline in oil prices might in the short run, adversely influence non-OPEC oil revenues, but not influence their short-time production capacities as they are already in place. They might even try to produce more oil to make up for their loss of revenue. Mostly high cost new discoveries however may be out of reach economically, which in the longer term may reduce the non-OPEC production capacity. It should therefore be in their own interest to support efforts to maintain oil prices at the current affordable levels.

The scenario of a plateau of non-OPEC production in the nineties will already leave OPEC to fulfill the expected increase in demand. But a reduction in non-OPEC production may result in a tight market situation which may cause the world to see another round of price increases. This may not happen in the immediate future or even before the end of this decade. But it will happen if we choose to let the situation continue to run the way it is today. It may not be in OPEC's best interest to have that to happen. A 1970's type price increase situation will definitely be followed by a 1980's type of decline.

Different price levels have different effects on each OPEC member country. Higher price levels which in the long run will influence the demand negatively, may not be in the best interest of countries with huge reserves. Countries with limited reserves are interested in high prices as this will generate the highest possible income while the reserves last. This phenomenon, albeit in a limited form, can be observed within OPEC since around 1976, with the open confrontation in 1981. All of us still remember the controversy surrounding the "flooding approach" at that time, sparking the decline in prices which continues until today as market forces again take over the lead from OPEC.

Even though higher levels of oil prices may have a different effect on each OPEC member country, the author however believes that all OPEC member countries will suffer by a continuing decline in the present oil prices. The same is also true for all non-OPEC oil exporting producers.

For some countries the reduction of income will only mean the use of their foreign exchange reserves. For others it may mean the difference between

political survival or collapse. In between there can be a different degree of influence. However if this all is compounded by a significant reduction of the production levels then the problems may be unsurmountable.

This will not only financially hurt the oil producing countries. OPEC and other oil exporters are significant importers of goods and services originating from various industrialised countries. Naturally with the declining revenue of oil exporting countries, their ability to purchase will be adversely affected thus influencing the economies of the industrialised world. Such a situation may cause other social and political imbalances and may affect in the worst case, international stability. It may seem to many that this may be a too far reaching conclusion of a doomsday scenario, but it may happen if all of us remain irresponsible to the danger ahead of us.

For Indonesia the situation may not be as critical as it seems since a prudent foreign exchange management has provided her with a comfortable cushion. However, any decrease of prices combined with lower production levels will force Indonesia to revise somewhat of her development plans. Indonesia believes in the stability of prices and production, as she also believes that she will still be an oil exporter well into the next century.

The future for oil producers, especially within OPEC, looks much brighter in the nineties. There are many obstacles though which will confront oil producers from now until then, but one must not be shortsighted.

What would the possible effect be of different oil prices and trends in regard to future prices and oil requirement?

VIII

An interesting study was made by the earlier mentioned London Economic Limited which had developed 3 possible medium term scenarios on the basis of different price profile postulations. Those scenarios are:

- a. Initial price erosion, associated with buoyant but cyclical economic growth and vacillating consumer/producer energy policy responses;
- b. Price stability, associated with buoyant but stable growth and cohesive producer/consumer responses;
- c. Imminent price collapse, a recessionary economy and break-down in policy responses.

Based on a US\$26 per barrel price today and oil consumption of 46.2 million b/d, the initial price erosion scenario calls for a decline to US\$22 by 1987-1988, but moving up towards US\$24 by 1990, while oil consumption will be about 49.8 million b/d by then after being stable through 1987. The imminent price collapse envisages a drop to US\$15 by 1986-1987 and a sharp rise thereafter to US\$29 by 1990. This study predicts that those falling oil prices will trigger an economic downward trend and significantly reduce oil demand which may fall during 1986-1987 to below 45.0 million b/d and gradually increase to about 45.1 million b/d; still less than 1985. On the other hand the price stability scenario also envisages some decline in 1986 to about US\$24 but a recovery to US\$ 25 during the remainder of the period up to 1990, while oil demand will continue to grow to 48.3 million b/d. While the figures quoted may be questioned by other experts, or may not be compatible with other studies, the general trend indicated by this study is the present accepted wisdom.

It is therefore interesting to note that in the longer terms, up to the year 2000, the initial price erosion scenario will result in the highest oil price of US\$45 in constant 1985 US dollars, after being US\$35 in 1985, with the highest oil demand of 51.8 million b/d.

The imminent price collapse scenario will cause the lowest economic growth that results in a lower oil demand in the year 2000 of 43.8 million b/d and prices down to about US\$30 per barrel in 1985 US dollars, after being forecasted to be US\$40 by 1995. This is definitely not a very desirable scenario for producers and consumers alike.

The price stability scenario is somewhere in between with a stable oil demand of about 50.1 million b/d throughout the nineties and price of US\$25 in 1995 and US\$35 in the year 2000, all in constant 1985 dollars.

In the language of that study it seems, that we are now still between the price stability scenario and the initial price erosion one. It will definitely be beneficial for us to remain in that stage as it will give us some sort of stability in our earnings. But the author believes that this will only be possible if we all can maintain the balance of supply and demand in such a way that there will be no unnecessary downward pressures because of an imminent over-supply threat.

The alternative to this is an imminent collapse scenario which at a later stage will push prices up. The consequences however are not beneficial for either consumers or producers alike in the medium and longer term. This may happen if we let the situation go unchecked. The downward pressures by com-

peting crudes available at temporarily large volumes will definitely direct the pressures downward, while the bottom line can be anybody's guess. This, the author believes, would have been the case if OPEC had not taken the preventive measures in its own so far.

It seems that letting things go as they stand today cannot be considered the best alternative. OPEC has contributed its share and has done it well by its effort to maintain the balance of supply and demand by curtailing its own production. However, OPEC's efforts are definitely not adequate to continue to maintain this balance. OPEC needs the co-operation of non-OPEC oil producing countries. Mexico has taken the lead which, if followed on a global basis, can produce positive results. As has already been repeatedly emphasised on several occasions one has to be willing to consider the possibility of at least arranging a dialogue between all significant oil producers and will definitely be more fruitful if large consuming countries could participate.

It will indeed not be easy to get all parties to sit down at the same negotiating table. Different perceptions of the global petroleum outlook and the psychological barriers which have developed will have to be overcome. But the author believes that it is well worth trying. The alternative of not reaching some sort of arrangement may well be disastrous. A preliminary discussion between leading figures of some producers, both from OPEC and non-OPEC countries and preferably also representatives from industrialised and Third World countries as well, might clear the way for further dialogues.

The author feels it being his moral obligation to alert the world of the serious situation confronting it since timely action can still produce positive results. The problems of oil are not confined to haggling over prices and production, but they above all concern the vital and perfectly reconcilable economic and political interests of both producers and consumers.

It is for this reason therefore that the author has been repeating his suggestion of holding a dialogue with the intention of preventing a possible deterioration of the world economy which would have an adverse effect on all of us. It is not in the interest of OPEC alone if all of us should hope that reason will prevail with ingenuity, dedication, compassion and a better understanding of the need to develop our technological and scientific capabilities for producing and using our energy resources. Let us all work together in harmony towards achieving positive results for our world we all live in.

The ASEAN Petroleum Industry towards 2000

M.A. WARGA DALEM

INTRODUCTION

The Association of Southeast Asian Nations (ASEAN), which was established in August 1967, consisted originally of five countries, viz. Indonesia, Malaysia, the Philippines, Singapore and Thailand. Brunei Darussalam joined ASEAN upon achieving independence on January 1, 1984.

With the exception of Singapore, each of the ASEAN member-countries produces oil and gas, dating back as far as 1885 and as recent as 1979.

Initially the regional oil industry was developed and dominated by a relatively small number of big companies based traditionally in Western Europe and later in the United States. They operated initially as concession-holders with complete ownership of the petroleum resources.

After the first oil crisis in 1973/1974, the ASEAN region as a whole underwent a change in the "power balance" between the foreign oil companies and their host-governments. This is reflected in the establishment of national oil companies with sole authority to exploit the petroleum sources on behalf of the States and the evolution of the concession-contract system toward increased participation and involvement of the national oil companies, and government control and ownership of the resources. It is also during this period that the regional petroleum industry flourished to become one of the centres of petroleum activities in the world.

Paper presented at the World Energy Conference, Regional Symposium for Southeast Asia and Pacific, Perth, Western Australia, March 24-26, 1986. M.A. Warga Dalem is Expert Staff of the President Director, Pertamina.

For the first time in history Indonesia joined the ranks of million-barrels producers, the Philippines and Thailand became producers, Brunei Darussalam reached the highest per capita living standard in Asia, and Malaysia became the first offshore operator in the region.

Further maturing of the industry will take place in the coming years as the governments are determined to maintain the high economic growth the region has been leading during the last ten years.

BRUNEI DARUSSALAM

Brunei Darussalam is an Islamic Sultanate on the North-coast of Borneo with a total area of 5,765 km² and a population of just over 200,000 people.

Geologically Brunei belongs to the Baram Delta-Brunei-Sabah Basin, which is a small part of the Northwest Borneo Superbasin. The thickness of the Tertiary sequence penetrated exceeds 10,000 m. Sand bodies have porosities of up to 30 per cent and permeabilities of up to 1,000 millidarcies.

Surface seepages of oil had long been known, but exploration was not begun until 1899. During drilling of the first well, oil was struck in 1929 and the giant Seria Field was discovered. Development was slow and peak production before the outbreak of the Second World War was only 17,000 barrels of oil per day.

Offshore drilling was started in 1954, which led to the discovery of the second giant oil field Southwest Ampa in 1963. The third giant, Champion Offshore was discovered in 1970. Peak production was reached in 1979 when the average daily production was 241,000 barrels of oil per day.

By 1985, 71 per cent of the ultimate recoverable reserves or 1.9 billion barrels of oil had been produced out of 2.7 billion initially recoverable. Only 17 per cent of the remaining reserves are located onshore. A total of 7 offshore and 4 onshore fields have been discovered, with the 3 giant oil fields accounting for 2.5 billions of oil out of the initially recoverable reserves.

Since 1983 Brunei began to adopt a depletion policy, by limiting its daily oil production at around 150,000 barrels until the end of the century, although its present production capacity is estimated at least at 210,000 barrels. Its maximum output was 260,000 barrels in 1979.

Brunei pioneered the LNG trade in ASEAN. An agreement in principle was signed with the Japanese buyers in 1968. Since 1972 Brunei has been exporting

LNG to Japan under a 20 year sales contract, effective as of January 1, 1973, to supply ultimately 155 cargoes of LNG per year. To date, more than 1,600 cargoes of LNG of 1.72×10^{12} BTU each have been exported. The 5-train plant at Lumut is capable of producing 5 million tons of LNG per year with an ultimate expandable capacity of 6 million tons per year.

In 1983 Brunei produced an average of 942 MMSCFD of gas, 89 per cent of which was contributed by Southwest Ampa and Fairley Fields in the Offshore West Area. Prospective gas demands for 1985-1993 are as follows:

1985	900 MMSCFD (est).
1990	917
1993	922

Brunei's ultimate recoverable reserves of gas is 10.9 trillion cubic feet, of which 5 trillion cubic feet has been produced by 1st January 1985. Gas production in the future will be more in the form of associated gas. Whatever associated gas which cannot be utilised for other industrial uses, will be reinjected into the producing formation. The present oil and gas reserves are considered sufficient for about 15-20 years, because no major increase in domestic use is envisaged due to lack of the industrial sector.

Additional oil and gas finds are still expected in the future. Gas potentials are better with expected finds in the order of 100-500 billion standard cubic feet of recoverable gas, while oil potential will mostly be small fields in the order of 20-100 million barrels of recoverable oil.

Brunei at present has 3 giant, 2 large and 1 small oil fields. Enhanced recovery activities over the next 15 years are expected to yield another 200 million barrels of oil. At present Brunei Shell (BSP) is conducting a world pilot project in surfactant flooding or polymer sweep in the giant Seria Field to improve the present recovery factor of 36 per cent out of 2.5 billion original-oil-in-place.

Except for replacing ageing facilities and developing the presently known reserves, no new major development is envisaged in the short term in the rest of the petroleum industry. No significant hydro scheme, nuclear project or development of renewable energy exists. Therefore no major proposal in these fields is contemplated.

Energy consumption covers only oil and gas, in 1981 at 25.3 per cent and 74.7 per cent respectively, with a total of 2,682 million tons of oil equivalent or about 14.4 per cent of total production. In 1982 oil consumption was esti-

mated at 12,000 barrels of oil per day, to increase to 20,000 barrels by 1990 and 25,000 barrels in 1995.

The increase in consumption (except for own use) is mostly in the transportation sector (estimates at 15 per cent per annum), since most petroleum product prices are still subsidised. The country's growth rate for the period 1985-1995 is estimated at 4 per cent per annum.

Brunei has only one 10,000 barrels per day refinery at Seria, which went on stream in October 1983. It is designed to meet local demand for locally blended mogas jet fuel and gas oil, and together with an earlier small oil plant at one-fourth the new capacity should make Brunei self-sufficient.

At present oil and gas activities account for 95 per cent of Brunei's annual revenues, providing a trade balance believed to be in the region of US\$3-4 billion annually and giving its population the highest per capita living standard in Asia.

Brunei is not considering establishing a state oil company for a while, because of shortage of manpower. The government, however, may want to have a larger share in petroleum ventures with foreign companies. No new legislation on petroleum is foreseeable in the near future.

INDONESIA

Indonesia can be divided geologically into four large regions that are parts of the tectonic plates: the Eurasian cratonic plate, the Indian-Australian plate, the Philippine Sea and the Caroline plates.

Superimposed upon these huge plates are 60 Tertiary basins, each having a sedimentary fill of more than one second of seismic data (TWT) or approximately 1,000 m of sediments. About 20 per cent of these basins is Middle Miocene and older, while the rest is of Pliocene and Pleistocene age. These basins represent five general types: extracontinental fore-arc, inner-arc and back-arc subduction basins, extracontinental median basins and cratonic basins.

Thirty-seven basins have been explored until todate. Discoveries were made in 23 basins, 16 of which are proved to be commercial. Only 14 basins, however, have reached production stage, three of which were brought into production after the Second World War. Two other basins are awaiting development.

Evaluations performed by Pertamina geologists in 1985 revealed that 27 per cent of the sedimentary basins are onshore, 42 per cent offshore in water depth less than 200 m, and the remaining 31 per cent in deeper waters. Total hydrocarbon resources yet to be discovered have been placed at 84.5 billion barrels of oil equivalent:

oil	48.4 billion barrels of oil and
gas	36.1 billion barrels of oil equivalent or
	216.8 trillion cubic feet.

This is slightly less than the previous resource estimate revealed in 1980, which was 89.7 billion barrels of oil equivalent, with oil 43.5 billion barrels and gas 46.2 billion barrels of oil equivalent or 277.5 trillion cubic feet. Note the considerable reduction in the figure for gas and the slight increase for oil. This revision was based on the integrated data accumulated and interpreted continuously.

As of January 1, 1985, 10.6 billion barrels of oil and 11.6 trillion cubic feet of gas have been produced, while proved reserves are 10 billion barrels of oil and 80 trillion cubic feet of gas. There are over 400 oil and gas fields identified throughout Indonesia.

Drilling for oil was started in 1872 in Maja, West Java, but it was not until 1885 that oil was discovered in Telaga Said, North Sumatra. Since then 5 giant oil fields (fields having more than 500 million barrels of recoverable oil) have been identified: Duri, Minas, being on-shore and Handil, Ataka and Arjuna offshore, with a total original recoverable reserves of 8.2 billion barrels of oil. Minas Field with an initial recoverable reserves of 4.5 billion barrels of oil (just a little bit short to be called a Super Giant with an initial recoverable reserves of 5 billion barrels of oil) is the largest oil field in the Far East, although it only ranks 40th in the world.

Twenty-seven large oil fields (each having an initial recoverable reserves between 100-500 million barrels of oil) have also been discovered, with another 185 oil fields considered as small (each with less than 50 million barrels of oil initially recoverable). This reserve pattern supported by the structural diversity generates a highly dispersed industry, permitting almost any dimension of company and venture to participate. The average size of a small oil field, on-shore and offshore, is 22 million and 30 million barrels of recoverable oil, respectively.

Since the last 10 years exploration efforts have been intensified from the intensively explored producing basins towards the non-producing, remote,

isolated, frontier and deepsea basins. Explorers are given exploration incentives with the intention for them to discover large dimension reserves, rather than small ones as in the former basins. This effort resulted among others in a very significant discovery of the Tiaka Offshore Oilfield in East Sulawesi. It is the first oil discovery in the island as well as in related basins, thus stimulating further exploration works in other part of the basin and in other non-producing basins. Delineation activity is now underway for a commercial production.

Another effort encouraged by the Indonesian Government since the last two decades was to increase oil reserves by application of Enhanced Oil Recovery (EOR). Incentives similar to those given for the discovery of new fields, are also awarded to fullscale EOR projects, both secondary and tertiary recovery.

Secondary recovery has not been widely applied in Indonesia, despite the fact that one of the earliest large scale gas pressure-maintenance project in the world and thus at the same time also one of the earliest efficient gas conservation system was the one conducted by P.T. Stanvac Indonesia from 1927 through 1956 in one of its oilfields in South Sumatra. Several EOR projects in the form of water and gas injection, pressure maintenance etc., are currently in operation. The steam flood project conducted by P.T. Caltex Pacific Indonesia in the Duri Field, Central Sumatra, since April 1985 is the most important one. The objective of this project is to increase the ultimate recovery factor of the heavy crude produced from 11.8 per cent by primary depletion up to 55 per cent by steam flooding, or an addition in reserves of close to 3 billions barrels of oil. Meanwhile, the daily production is expected to increase from around 50,000 barrels before injection to its peak of 309,000 barrels per day by 1991. This is probably the largest steam flood project in the world.

A tertiary recovery pilot project is currently being prepared by Total Indonesia in Handil Field, East Kalimantan. Chemical injection is expected to commence in the second half of 1986. Once this pilot project results in a positive indication of increasing oil recovery, then it will be conducted on a fullscale basis.

The following table shows the projected oil production and domestic liquid fuel requirement for the Fourth Five-Year Development Plan period (1984-1989):

Year	Projected Production M Bbl/Day	Domestic Liquid Fuel Demand M Bbl/Day	Remarks
1984/85	1,400 (Actual: 1,414)	438 (Actual: 440)	OPEC Prod. Quota
1985/86	1,535	441 (Actual: 440)	—
1986/87	1,613	451	—
1987/88	1,668	471	—
1988/89	1,754	500	—

Current proved reserves backed up by active exploration works and application of EOR will be able to support this projection.

One supergiant offshore gas field in the East Natuna Basin (D-Alpha) and two giant onshore gas fields, namely the Arun Field in Aceh, North Sumatra and the Badak Field in East Kalimantan, have so far been discovered. Studies are now underway for the most efficient use of the gas reserves, including the feasibility of transporting the East Natuna gas to Sumatra and Java by pipeline. In fact Arun and Badak Fields have long become the main gas suppliers to the Indonesian LNG production system for export to Japan. Recently the Nilam and Tunu Gas Fields were discovered. Both were located in East Kalimantan, and both may be classified as giant fields.

The following table illustrates the estimate of Indonesia's total gas supply and demand to 1995, which covers gas supplies to industries for fuel and feedstocks, LNG and LPG plants, public utility service, but excluding producer's own use in the process of oil and gas production:

Year	Total Supply MMSCFD	Total Demand MMSCFD	Domestic Demand MMSCFD	Percentage of Domestic Demand	Remarks
1973	—	—	101	8.21	—
1985	6,099	—	759	19.64	—
1988	—	—	906	18.73	—
1990	5,477	3,841	—	—	—
1995	6,323	5,723	—	—	—

With oil production safely beyond the one-million-barrels-per-day mark and both LNG plans in operation, Pertamina decided in the late seventies to expand the capacity of its old as well as new refineries in Cilacap (Central Java), Dumai (Central Sumatra) and Balikpapan (East Kalimantan) with the intention on to satisfy the domestic liquid fuel requirement which has been increasing at a rate of up to 12.3 per cent per annum for five consecutive years,

and to achieve self-sufficiency in liquid fuel supply. These projects were completed between late 1983 and early 1984 doubling the current effective refining capacity to 820,000 barrels per day.

Between 1982-1985 the government increased the price of domestic fuels repeatedly, thus, halting the increase in domestic consumption. Fuel consumption in 1985 was 440,000 barrels of oil equivalent, slightly less than the figure for 1984. By 1990 this level is expected to be even lower, although the Fourth Five-Year Development Plan (1984-1989) projected an annual increase of around 3.5 per cent. Therefore existing refining capacity is considered sufficient to satisfy domestic liquid fuel demand up to the mid-1990s. Except for modernising the ageing refineries in Sungai Gerong and Plaju, South Sumatra, there will be no major refinery construction activities.

In the field of gas processing, Indonesia at present has 4 LPG plants with a total capacity of 640,000 tons per year. While domestic LPG consumption in 1985 was still 140,000 tons per year, the rest of the production is exported to Japan and the United States. Domestic LPG consumption is expected to increase by 20-25 per cent per year until 1990. With the completion of the refinery expansion, another 400,000 tons of LPG per year can be produced at peak capacity. The new LPG plant at Tanjung Uban, Central Sumatra, completed in early 1986 with a capacity of 450,000 tons per year will produce refrigerated propane and butane with a high degree of purity for export to Japan. This plant will take in the surplus LPG produced by the refineries earmarked for export.

To utilise the abundance of gas, additional LPG plants are planned in Arun and Bontang Fields by extracting LPG from the gas stream to the LNG plants. A feasibility study is now being undertaken for additional LPG plant capacities of around 2 million tons per year, while in South Sumatra another LPG plant with a capacity of 300,000 tons per year is also being considered. If feasible, all these plants are expected to be on stream by 1989/1990, with all products meant for export.

In the field of Liquefied Natural Gas (LNG), at the moment Indonesia has 5 LNG trains at Arun and 4 trains at Bontang, with a total design capacity of 14 tons per year. These trains, however, are running safely at up to 22 per cent above design capacity, with all LNG produced exported to Japan. The sixth train at Arun with another 1.5 million tons per year capacity will be completed by the end of this year for export to South Korea. Negotiations are now under way for LNG export to Taiwan. By December 1985 more than 1,300 shipments of LNG have been made, each carrying 125,000 m³ of cargoes, yielding more than 11 billion dollars in revenue to the Government.

In the field of petrochemicals, there is only one small Polypropylene Plant at Plaju, South Sumatra, completed in 1973. It has been operating on-and-off.

Its effective capacity at the moment is only 8,000 tons per year. A 300,000 tons per year methanol plant is nearing completion at Bunyu, East Kalimantan. The Aromatic Centre, also at Plaju, will also be on stream in mid-1986 producing 225,000 tons per year of PTA (pure terephthalate acid). Most of the products will be sold in the domestic market. A feasibility study is being undertaken at present for a paraxylene plant with a design capacity of 200,000 tons per year and a resid-cracker plant with a design capacity of 115,000 tons per year. The study is expected to be completed by the end of 1986.

Beside petrochemical plants producing intermediate products for downstream industries, Indonesia also has 4 fertiliser plants with a total capacity of around 4.5 million tons per year. With the price of incoming gas subsidised, Indonesia was able to become self-sufficient in rice since 1984 after being the biggest world rice importer until the late seventies. Otherwise no other petrochemical project is envisaged until 1990, although a substantial growth rate in petrochemical demand is expected.

MALAYSIA

Geologically Malaysia covers the major portion of the Sunda Shelf. The cratonised backbone of the Malaysian Peninsula is flanked by the Straits of Malacca Basin on the western side and the Malaya Basin on the eastern side. Further east are the Sarawak Basin, the Baram Delta-Brunei-Sabah Basin and the West Sulu Basin. The sedimentary thickness of the Tertiary deposits may exceed 10,000 m. The Malaya and the Baram Delta Basins are considered to have high oil and gas rating.

Oil search began in 1910 in Miri, Sarawak, but development was slow. Maximum output reached before offshore discovery was only 15,000 barrels of oil per day in 1928, declining thereafter. Miri Field was shut-in in 1972 after producing 79.7 million barrels of oil. The first offshore oil production came from West Lutong Field in 1966. Since then offshore production increased, reaching 430,000 barrels of oil per day in 1985. A total of 1.3 billion barrels of oil has been produced in the country.

Recoverable oil reserves from 45 offshore oil fields stand at approximately 3.0 billion barrels of oil at the end of 1985 with Esso Malaysia holding the largest share of the reserves (about 62 per cent), followed by Shell (about 35 per cent). Another 1.2 billion barrels of oil is expected to be discovered by the year 2000.

One giant oil field (Tapis/Bekok/Pulai) has been discovered, while 5 fields are classified as large, 1 medium (between 50-100 million barrels of oil recoverable) and the rest small.

Gas reserves at the end of 1985 were put at 53 trillion cubic feet, all offshore and more than 80 per cent non-associated, more than three times the oil reserves in terms of calorific values. Cumulative gas production is estimated at about 3.5 trillion cubic feet. Production level in 1985 was 1.4 billion cubic feet per day. Recent discoveries have yielded more gas than oil. It is estimated that another 21-37 trillion cubic feet of gas will be discovered by the year 2000.

Total energy demand for primary commercial fuels grew at about 8-9 per cent per annum between 1975-1985. It is expected to grow ultimately at 5-7 per cent per annum between 1985-2000, with the manufacturing sector being the largest consumer at about one-third of the total energy consumed.

In 1983 a total of 210,000 barrels of oil equivalent per day of energy was consumed in Malaysia. The 1983 energy consumption pattern was 89.3 per cent oil, 4.4 per cent hydro, 3.9 per cent natural gas and 2.4 per cent coal. Coal was exclusively consumed in the cement industry through imports which amounted to 36,000 tons. Oil consumption in 1985 was 186,200 barrels per day.

While oil production in 1985 has been kept at 430,000 barrels per day, production in 1986 has been planned for 510,000 barrels per day in view of the anticipated over-supply in the world market in the next few years and to balance the loss of income from export of petroleum and petroleum products. Petroleum and petroleum products have increasingly become the main earner of foreign exchange. In 1985 it accounted for 25 per cent of total export or 30 per cent of total revenues.

At the same time refinery operations have shifted sharply to utilise more domestic crude oil since 1982.

The Esso and Shell Port Dickson refineries which were originally designed to refine Middle East crudes, are now processing a blend of imported crude and Malaysian Tapis crude on a mix of about 63/37, although this has reduced the effective capacity to 86-87 per cent of its design level on Middle East crude only.

The 30,000 barrels per-stream-day (bpsd) Petronas Terengganu refinery which was completed in 1983 has been designed exclusively to process Tapis crude.

Malaysian energy policy calls that domestic energy resources should be utilised as export commodity to earn foreign exchange and improve the country's import/export balance. Therefore heavy residual fuel oil consumption

will decline sharply by 1990 to a negligible level replaced by increased diesel and distillate oil demand. It is therefore envisaged that a heavy fuel oil conversion unit will be required in the next few years, at least with the minimum economic capacity of 20,000 barrels per stream day.

Since refinery capacity will be maintained at 62 per cent of domestic demand, another new domestic refinery will be required before 1990. A plan for grass-root refinery construction with 120,000 barrels per stream day has been reviewed in late 1985 with possible location in Lumut, Perak.

Pivotal to Malaysia's future energy sector development is the increased utilization of gas. In 1985 gas production totaled 483 billion cubic feet or an increase of 21.4 per cent over 1984.

Petronas officials estimated that gas usage would increase to 0.8-0.9 trillion cubic feet in 1990 and probably in the order of 1.1 trillion cubic feet by the year 2000. Included in these estimates are the increased gas sales in Peninsular Malaysia and Singapore, plus expansion of the Bintulu LNG plant by a further 2 million ton per year LNG train.

These would result in a cumulative gas production of some 20 trillion cubic feet by the year 2000, still leaving a huge reserve of gas for the next century.

Domestic utilisation of gas through the Peninsular Gas Utilisation (PGU) Project was started by the Perwaja Steel Mill in Telok Kalong, the pilot gas rectification project at Kerteh and the combined cycle 900 MW power plant in Paka, all located within Terengganu.

A gas processing plant at Kerteh, Terengganu, has been completed in October 1984 with an initial capacity of 175 million cubic of gas per day for Phase I, namely: 140 million cubic feet for the Paka Power Plant; 23 million cubic feet for the Perwaja Steel Mill, and 12 million cubic feet for other uses. For 1991 these figures will increase to 280,44 and 117 respectively, making a total of 441 million cubic feet of processed gas per day from the Kerteh Plant.

For Phase II additional trains would be built at Kerteh, which is scheduled to come into operation around 1989-1990, supplying gas to the Tuanku Jaafar and Port Kluang Power Stations along the West Coast, each of 600 MW, and a possible offtake in the southern area. Phase II would involve 489 million cubic feet of gas per day.

Phase III would envisage the construction of a pipeline grid to feed the power station at Prai in the north with an offtake of 92 million cubic feet of

gas per day. Thus, after taking into consideration the development plans for Peninsular Malaysia and the Bintulu LNG Expansion, it is not unreasonable to expect by 1992 a gas utilisation level of 1.5 billion cubic feet each in the Peninsular Malaysia and in East Malaysia, which makes a total of 3 billion cubic feet of gas per day or 1.1 trillion cubic feet per year.

As for crude production, the highest oil production capacity that can ever be achieved by Malaysia is estimated at 600,000 barrels per day by 1987. Thereafter production capacity will decline. Whether this maximum level of production would ever be reached depends mostly on the country's need for foreign exchange.

In 1979 the National Depletion Policy was enacted to leave some oil discoveries in place and oil production regulated to a maximum of 1.75 per cent of oil-in-place in any given year. The intention was to guarantee the availability of oil by the year 2000, in view of the limited amount of recoverable oil remaining. Additional discoveries thereafter improved the outlook of oil availability and consequently the National Depletion Policy was revoked in 1982. By 1985, however, dependency on petroleum revenues was already 30 per cent.

The present policy is that until 1990 oil production level will be maintained above 400,000 barrels per day at all times. Future policy will depend on the results of the new exploration incentives announced by the government on 4 December 1985 to further encourage petroleum exploration. The incentives allow a more reasonable rate of return and a speedier return of capital to the oil companies in the event of a commercial discovery. Dependence on oil of its domestic energy needs at present is over 90 per cent. By 1990 the government hopes that gas will make up 30 per cent of the national energy pie, since gas is cheaper for many of the country's huge industrial plants.

Besides the Peninsular Gas Utilisation Project in Peninsular Malaysia and the LNG Plant at Bintulu in Sarawak, there is another major gas project, i.e. the Sabah Energy Corporation's gas collection system on Labuan Island to provide gas to three industrial projects, namely the 700,000 tons per year sponge-iron plant, a 2,000 tons per day methanol plant and a 70 MW power station, involving a total investment of US\$580 million.

Malaysia is currently planning a middle distillate synthesis plant in Bintulu, Sarawak, based on the Shell Middle Distillate Synthesis (SMDS) technology to convert natural gas into high-grade kerosene, diesel and other liquid fuels. Investment required for the project, planned to be on stream in 1990, is estimated at around US\$800 million, which practically excludes private na-

ional investment. Based on a feedstock of 100 million cubic feet of gas per day, the SMDS process will yield 11,000 barrels per day of diesel fuel, kerosene and naphta at various percentages depending on the gas mix.

Negotiations are still being conducted between Shell and Petronas, the national oil company, on this issue. If successful, this will be the first project to use the SMDS process in the world, and this might affect refinery configuration and utilisation scheme in the region.

Another Petronas plant to produce 300,000 barrels per day of MTBE (methyl-tertiary-butyl-ether) to act as octanebooster for gasoline is now also being considered at a cost of US\$250 million. The entire output is meant for local consumption.

THE PHILIPPINES

Drilling for oil began in 1896 on Cebu Island. Since then exploration activities had been very sporadic. After implementation of the new petroleum legislation in 1972 activity began to be more significant. In 1976 the Nido Field, the first offshore oilfield in the country, was discovered. Since then 17 major sedimentary basins have been identified more than 100,000 km of seismic lines were shot and more than US\$400 million were spent for exploration and development during the period 1973-1980, including drilling of 112 wells. Although hopes ran high with the first discovery, subsequent revision in proven oil reserves finally classified the discovery as a small find.

The first offshore oil production began in March 1979, reaching a peak production of 40,000 barrels of oil per day in August of the same year. The performance thereafter, however, was not encouraging. At present, three fields are producing with an average production of only 8,190 barrels of oil per day for 1985, all located offshore. This constituted 6 per cent of domestic oil consumption. Average production for 1986 is estimated at 5,560 barrels of oil per day. Ultimate recoverable reserves of these fields have been set at 45 million barrels of oil, of which 28 million barrels of oil had been produced through the end of 1985.

The largest field discovered today is the Matinloc Field with an ultimate recoverable reserves of 20 million barrels of oil. Although only 24 per cent of the offshore basins and 30 per cent of the onshore areas have been explored, no major discoveries are expected in the future, while production is not expected to be higher than the present level. The deepwater Galoc Field will remain mothballed for some time because of the economics of developing the oil reservoir found in 1,050 feet of water.

In 10 out of the 17 basins the oil prospects have been rated low, while in the remainder the prospects are only moderate.

Gas in commercial quantity has not been discovered until today, although some non-associated gas containing condensates discovered in the Galoc Area.

Petroleum activities have remained low for the last four years, with no drilling at all in 1985, and would probably remain so until the end of this decade, with some cyclical upturns from time to time. For 1986 two offshore and three onshore exploration wells will be drilled.

In its effort to revive the interest in the search for oil, in early 1984 the Philippines government supported by a World Bank loan conducted an aeromagnetic survey and offshore seismic and basin evaluation studies to be integrated with already known data. The study has now been completed and the results will be made available to the public by mid-1986. If this promotional package does attract investors, then results in terms of going into production could not be expected until 1988 given that oil companies would have to conduct their own seismic and geophysical surveys before going any further.

Since domestic oil constituted no more than 10 per cent of total energy consumption at its peak in 1979, the oil import bill has been a major burden to the national economy.

In 1985 oil bill was US\$1.4 billion or half its value three years ago. Including other oil service payments, almost half of the net foreign exchange receipts from merchandise was taken up to cover the bill. Oil consumption for 1985 was estimated at 145,000 barrels of oil per day, a decline of almost one-third from 205,000 barrels of oil per day in just two years. The projected oil consumption for 1986 is 140,000 barrels per day and it will remain more or less at this level for the rest of the decade. Compared to a 92 per cent dependency on imported oil for energy needs in 1973, dependency on imported oil in 1985 was 50 per cent, with a target of 47 per cent for 1986. At the same time that the oilfields were being developed, the government has also been developing geothermal power, hydro and the coal industry for domestic consumption. In fact oil which now constitutes only 50 per cent of energy mix, again reached the same level as in 1967 or 19 years ago. While oil imports have been declining at an average rate of 1.8 per cent annually, production of indigenous energy has been increasing at an annual rate of 19.4 per cent.

At present with an installed capacity of 894 MW geothermal power plant, Philippines is the second major producer of geothermal energy after the United States. Total refinery capacity is 265,000 barrels of crude per day, with

capacity utilised only 146,000 barrels per day. By 1986 it is forecasted that one of the 3 refineries, 20 bulk plants and 1,000 gasoline service stations will be shutdown. Refinery utilisation is not expected to improve significantly in the near future.

Prof. Paul Stevens from the University of Surrey, United Kingdom, who studied energy consumption in developing and industrialised countries predicted early this year that total demand in energy in the Philippines for the period 1982-1986 will ultimately grow by 30 per cent, although oil consumption has been decreasing by 5.1 per cent per year over the past five years. Whereas historically the crude mix for refinery runs was predominantly medium and heavy, it is now increasingly getting lighter. This means that in the future more crude will be imported from the ASEAN region. Fuel oil imported at present is only for oil-fired power plants.

For the immediate future of the petroleum industry in the Philippines, one of the most important factors remains political stability. Commercially viable oil traps may still be discovered, but discoveries will tend to be small (below 50 million barrels of recoverable oil). Exploration success rate is only 7 per cent, but since the Philippines is still importing oil for its own consumption, any oil that is produced will certainly be bought by the government.

Petroleum activities in the Philippines are governed by the Service Contracts whereby financing, services and technology are furnished by the Service Contractors for a stipulated service fee. Although the Philippine Service Contracts are considered as among the best in the world, a major problem for foreign oil companies is their inability to repatriate profits in dollars due to strict foreign exchange regulations imposed by the Philippine Central Bank.

SINGAPORE

Singapore possesses no known indigenous hydrocarbon resources in any form, onshore as well as offshore. Its dependence on imported energy is therefore complete. Singapore has nonetheless emerged as the major oil refining and service centre of Southeast Asia. At present Singapore is the world's third largest refining centre and the major Asian "swing refinery" complex, with a capacity of 1.1 million barrels of crude per day, compared to 27,000 barrels per day in 1961. It has earned a reputation for its competitiveness and rapid markets adjustment.

At its peak in 1982 petroleum refining accounted for 40 per cent of industrial output, with products exports amounting to US\$14.3 billion or one-

third of the country's total trade. One-third of its crude through-put has been from Indonesia and Malaysia and 88 per cent of its oil imports is reexported.

Since then Indonesia completed its refinery expansion project, doubling its capacity from 400,000 to 820,000 barrels effective capacity and Malaysia commissioned its first national refinery. With additional refinery completion in the Middle East, Singapore refineries will be facing large excess capacity for the rest of the present decade.

As "swing refinery" the Singapore refineries act to balance shortfalls and surpluses throughout the East-of-Suez Supply Systems. In fact Shell already planned in early 1983 to shutdown nearly half of its 460,000 barrels refinery capacity, which would bring down the country's refinery capacity by about 20 per cent. However, in the end it did not take this direction. To maintain its competitiveness and its existence, the refineries have invested nearly US\$1.5 billion in energy conservation, automation and product upgrading programmes, giving them greater flexibility to process a wider range of crudes to increase the yield of the more valuable lighter products.

Regional demand for middle distillates is expected to remain strong in the future, of which traditionally Singapore has been the main supplier. The thrust of Singapore's refining industry over the next decade will be towards increased secondary processing to extract more higher-value-added products from a barrel of crude and ever expanding flexibility of operation.

To support its function as an oil trading centre, Singapore has a rapidly expanding development of tankage and storage capacity. New capacity of the offshore terminals owned by independents will be about 4.6 million barrels which will be utilised to store crude oil, petroleum products and petrochemicals. With refineries having their own storage of crude and petroleum products, this brings the total storage capacity in the country to almost 52 million barrels, with only about 9 per cent in independent hands.

Alternative markets for petroleum products are now being sought, such as China and India, and possibly Bangladesh, Sri Lanka and Pakistan. Nevertheless until the end of the decade average processing capacity will be in the order of 600-700,000 barrels per day.

Singapore with its strategic location has always been a trading centre and a centre for on-shipment to various regional destinations. While its domestic fuel demand in 1982 was only 64,000 barrels per day, similar demands for marine bunkers and international aviation were 110,000 and 18,000 barrels respectively. While at the moment electricity is still the main energy source and

is largely oil-fired, starting 1989 natural gas will be delivered through pipeline from Malaysia for the new Senoko Power Station. Annual gas delivery under a 15-20 year contract is estimated to be around 150 million cubic feet per day, depending strongly on gas price and power connection costs. The balance of the gas needs will be supplied by Indonesia if the Natuna Offshore Gasfield can be commercially developed.

The Singapore petrochemicals complex, which became operational in 1984 has been operating at a loss in defiance of the market glut and increasing competition from the Middle East. The design capacity of its individual plants are 300,000 tons of ethylene cracker, 160,000 tons of propylene, 45,000 tons of butadiene, 120,000 tons of low-density polyethylene and 100,000 tons of propylene facilities per year. A major problem it is facing in the future is its feedstock contracts for naphta and LPG, current market price for the products and its viability to compete with similar North American plants. It is forecasted that viability would not be reached earlier than 1987-1988.

In the early eighties more than 300 foreign oil-service companies had its regional office in Singapore. With increasing demand by Indonesia and Malaysia for direct dealing with foreign companies, Singapore's role as a major corporate centre has decreased significantly. Indonesia's announcement to foreign oil companies and service-oil companies operating in Indonesia to use Pulau Batam island as an entrepot, has also decreased Singapore's role as an oil-service centre.

All in all, Singapore's future is still quite bleak despite its effort to remain competitive utilising the latest high-technology. While GDP growth in the first half of 1984 was still 10 per cent annually, by 1985 it already suffered a minusgrowth of 1.7 per cent. Forecast for 1986 is zero growth.

THAILAND

The first oil exploration activity took place in 1921 in the Fang Basin, Chiangmai Province, Northern Thailand. Oil was discovered in 1958 and the 1,000 barrels per day Fang Refinery was put into operation in 1959. The country was opened to foreign oil companies, when Union Oil Co. of Thailand was granted rights for petroleum exploration in the Khorat Plateau, Northeastern Thailand in 1962. After the Petroleum Act was enacted in 1971, under which the Concessionaires are now allowed to conduct full scale petroleum activities, exploration activities began to pick up.

In 1973 the first offshore natural gas discovery was made in the Erawan Field, Gulf of Thailand. In 1981 the 425 kilometre submarine pipeline from

the Erawan Field to the Eastern Seaboard and the 169 kilometre onshore pipeline to South Bangkok power plant was inaugurated, bringing 350 million cubic feet per day of gas for domestic utilisation. The ultimate capacity is 700 million cubic feet. At present this is the world's longest submarine natural gas transmission pipeline. In the same year the first commercial oil discovery was made in Kamphaeng Phet Province, Northern Thailand, which was brought into production as Sirikit Field in 1983.

By now the Gulf of Thailand has two major basins which are known to be hydrocarbon bearing, i.e. the Pattani Trough and the Malaya Basin. Nine gas fields have so far been discovered in the Gulf of Thailand, with a total of 5.9 trillion cubic feet of gas and 120 million barrels of condensate proved. The present gas policy is to develop additional fields on a systematic basis in order to maintain production at a 500 million cubic feet per day level by 1988 and 700 million cubic feet per day by 1991. By the end of 1985 more than 300 wells have been drilled and four offshore fields have been developed, capable of producing 450 million cubic feet of gas per day, together with about 20,000 barrels of condensate, equivalent in energy to about 100,000 barrels of oil per day or 35 per cent of Thailand's total hydrocarbon energy requirements. Cumulative delivery, however, has been averaging at 350 million cubic feet of gas and 17,000 barrels of condensate per day. This completes Phase I of the Natural Gas Development (NGD) Project, which was initiated in 1977.

By 1985 2 small fields onshore were producing around 22,600 barrels per day. Total initially recoverable crude oil reserve was estimated at 30.8 million barrels, with about one-fourth already produced. The crude has a significant wax content and liquefies only at a high temperature. It is hoped that in the future more oilfields will be discovered in the future although most probably it will be in the marginal range, with recoverable reserves below 20 million barrels of oil each.

With natural gas supplies assured, Thailand has moved quickly to implement Phase II of the NGD Project. The first gas separation plant at Rayong was commissioned in November 1984, having a design capacity of 350 million cubic feet of gas at a cost of US\$320 million. Based on a feedstock of 330 million cubic feet of gas, the average production rate for 1985 was 2,000 tons of carbon dioxide and 245 million cubic feet of sales gas per day and 462,000 tons of LPG and 84,150 tons of natural gasoline per year. The LPG distribution network nationwide funded by overseas banks at a cost of US\$ 113 million, comprised of six main depots, each with its own storage and tank filling facilities, connected to the Rayong Plant by road, rail and sea links. In the mean time the four new gas fields (Platong, Pladaeng, Satun and Baanpot) were interconnected with the existing transmission pipeline.

Under Phase III of the NGD Project, natural gas-related industries on the Eastern Seaboard Development Zone will be developed. Two core industrial projects, a world-scale petrochemical complex and a one-million tons per year chemical fertilizer plant will offtake ethane and methane respectively upon their completion within the next three to four years.

The petrochemical complex will consist of an ethane cracker unit which will produce about 315,000 tons of ethylene per year, a propane dehydrogenation unit which will produce about 105,000 tons of propylene per year, together with a central utilities unit which will be jointly used by both upstream and downstream industries. The fertiliser plant is expected to be completed in 1987 at a cost of US\$311 million and the petrochemical complex by the end of 1989 at a cost of US\$370 million. This ambitious US\$5 billion integrated regional development project called the Eastern Seaboard Development Programme, will provide Thailand with a new industrial growth center. A feasibility study is now being conducted for a second gas separation plant, expected to be completed by the end of 1986.

The target for the next five years is to reduce the dependency upon imported petroleum from 48 per cent in 1986 to only 35 per cent of total energy requirement by 1991. This in turn will require accelerated rates of exploration and production and massive capital investment at exactly the time when Thailand is facing greater constraints upon its external borrowing capacity. This also means a larger role for the private sector and a larger role for the foreign investor as well. Some other long-term plans for further gas utilisation in the future, subject to gas availability, include gas pipeline to the southern coast, an offshore compressor platform if gas delivery goes beyond 500 million cubic feet per day and a possible LNG train for export purposes.

In 1984 Thailand consumed energy of the equivalent of about 375,000 barrels of crude oil per day. Of this amount, 60 per cent was supplied by imported oil, 11 per cent by gas, 7 per cent by hydro, 5 per cent by lignite and 17 per cent from other sources such as charcoal, wood and bagasse. Although energy consumption will grow at about 5 per cent per year between 1986-1996, gas consumption grows at about 10 per cent per year. Economic growth for 1986 is estimated at 3.2 per cent, which is expected to increase to 3.9 per cent by 1991 and probably beyond 1991 as well. Domestic oil production is expected to level off until 1990, when it begins to decline sharply at 15 per cent per year onwards.

OUTLOOK FOR REGIONAL COOPERATION

The first oil crisis in 1973/1974 has brought awareness and realisation of the strategic importance of oil and gas and their vital role in the development of the economies of the Association for Southeast Asian Nations (ASEAN).

On October 15, 1975, the ASEAN Council on Petroleum (Ascope) was founded by the heads of the national oil companies/agencies in the region. The aims and purposes of Ascope include among others promotion of active collaboration and mutual assistance in the development of oil and gas resources in the region.

The present members of Ascope are all national oil companies: PNOG (The Philippines, established in 1973), Petronas (Malaysia, 1974), SNOG (Singapore, 1980), PTT (Thailand, 1978), and Pertamina (Indonesia, 1957).

ASEAN countries are united geographically by the ASEAN seas and politically by their decision to cooperate with each other and act collectively. The Andaman Sea, for instance, is shared among Thailand, Malaysia and Indonesia, while the South China Sea is shared by all ASEAN countries. While in the past the ASEAN seas have been important strategically as crossroads between two continents (Asia and Australia) and two oceans (the Indian and the Pacific Ocean), in the next decade the ASEAN seas will become more important for its petroleum resources c.q. oil and gas.

When Ascope was founded, only Indonesia and Malaysia were producers. The Philippines joined the ranks in February 1979, when the Nido Offshore Oilfield was brought on production, and Thailand in September 1981, when the first gas was delivered from the Erawan Offshore Field to Bangkok. Although Ascope was originally set up on a non-governmental level, its achievement has made Ascope the most advanced of the ASEAN organisations in implementing the various co-operative programmes within ASEAN. The Energy Ministers of ASEAN have, therefore, stipulated that Ascope shall handle and be the official vehicle of ASEAN for all oil and gas matters in the region.

Two drafts are now being considered for adoption by the Energy Ministers:

- a. Draft Agreement on ASEAN Energy Co-operation, as the umbrella over all future agreements related to Co-operation in all forms of energy, commercial as well as non-commercial, and
- b. Draft ASEAN Petroleum Security Agreement, for assistance of crude oil and or products in times of shortage or oversupply.

Several regional guidelines and operational manuals concerning matters of common interest have also been adopted by Ascope, such as:

- Guidelines for common regulations on offshore safety;
- Operational manual for the control and mitigation of marine and transfrontier pollution.

Professional studies with regional coverage have also been conducted.

In the future co-operation is expected to be much closer, when more experienced people become more readily available. At present activities have been much curtailed by lack of personnel, both in quantity and quality. Therefore for some time to come activities in developing human resources will receive first priority. Generally the petroleum policies adopted by ASEAN cover at least the following:

- a. to maximise the search for petroleum resources,
- b. to increase the efficiency of fuel use,
- c. to stop flaring of gas,
- d. to maintain an attractive investment climate for foreign investors,
- e. to strengthen petroleum institutions and management capabilities in the petroleum sector,
- f. to re-orient the industries from hydrocarbon fuels to other forms of energy, and
- g. to develop other forms of energy.

Co-operative efforts in the future will be along these policy-lines.

The general view at present is that, while recognising the growing scarcity of oil, in the intervening period before other forms of energy become commercially viable or before new and larger reserves of oil can be discovered, natural gas because of its relative abundance will be the key source of energy to substitute oil.

CONCLUSION

The petroleum industry in the ASEAN region has witnessed a spectacular growth during the last 15 years, especially its offshore arm. This development has resulted largely from the pragmatic perception by the governments concerned of the strategic role of oil as a vehicle in national development and the role of gas as a substitute of oil, not only in its application as fuel or feedstock, but also in its capability to generate foreign exchange reserve or lower foreign exchange spending.

The reaction from the outside world to the incentives provided to participate in the development of the petroleum industry in the region has been positive.

Many of the activities undertaken have been pioneering in nature, even by world standard, and this enhances the maturation process of the industry in

the region. The region is now the biggest LNG producer and exporter in the world. It also has the highest economic growth in the world, a major portion of which is attributable to the petroleum industry.

At present all ASEAN countries are poised for further growth towards the year 2000, within a framework of clear government support and enhanced by the mutual co-operation of governments through the ASEAN machinery.

Prospect of Nuclear Power in Indonesia

Liek WILARDJO

A quick glance at the semi-logarithmic chart of the per capita total or electrical energy consumption versus GDP will show that most developing countries are crowded in the left-bottom corner. It is therefore fair enough, that the developing countries try to gradually shift their position along the general direction of the main diagonal in such a chart. The oil crisis in the early seventies has taught us not to be excessively dependent on oil or on any one form of an energy source. While shifting our position diagonally, we also strive to achieve a more productive consumption pattern with a more balanced distribution for the people. We demand equity in energy and appeal to the conscience of the developed countries to curb their excesses in the consumptive use of energy. They should reduce or at least halt the rate of growth in their energy consumption.

Even in countries like Indonesia, which has conventional energy resources such as oil, LNG, coal, hydropower and geothermal, we however must realise that the unrenewable are not unlimited and are being depleted at an ever faster rate. We must therefore start looking for other sources of energy. One of the few possibilities is nuclear energy.

Just as is the case in most of the modern technological developments, the harnessing of nuclear power, even when the required technology is mastered and perpetual vigilance in observing safety and security measures is applied, taking some irreducible risk is however a necessity. Unless mankind comes up with cleaner, less expensive, less risky and abundant sources of energy, resorting to nuclear energy seems to be inevitable. In that case, shirking the nuclear

power issue and idly hoping for the best is not a prudent course to take. Instead, we must face the reality. We must prepare to prevent the unwanted consequences of operating nuclear power plants. And if bad comes to worse and an incident does occur, we should be ready to mitigate and contain it.

No sane people court disasters. However, if a disaster must occur occasionally despite of all the precautions made to avert it, it would be more bearable if the risk of its occurrence are accepted in the first place by all the people. Hence the importance of participation, seems to be a necessary, condition albeit not sufficient, for justice and sustainability is science and technology development.

DEVELOPING KNOW-HOW IN NUCLEAR TECHNOLOGY

The development of nuclear technology in Indonesia started in the early sixties when LTA (Atomic Energy Institute, which was later called BATAN or National Atomic Energy Agency) ran a short course on radio-isotope techniques in collaboration with IAEA and ORNL. At about the same time a sub-critical assembly with Po-Be neutron source was obtained from the USSR by the Gadjah Mada University in Yogyakarta, Central Java. Then a radio-chemistry laboratory was set up at the same university, which also began to operate a Co-60 gamma cell.

Meanwhile annexed to the Bandung Institute of Technology a reactor centre called PRAB (Bandung Reactor Centre), was established at which a TRIGA II reactor was installed. The 250 kWt reactor reached its first critical stage on October 16, 1964. PRAB, which was later renamed PPTN (Centre for Nuclear Technology Research) has raised the capacity of the reactor to MWt in December, 1972. As the name indicates, the 20 per cent-enriched UZr-hydride fuelled-cum-moderated, graphite dummy fuel rods moderated, reactor is used for research, training, and isotope production.

And next, the Centre for Pure Substance and Instrumentation Research (PPBMI) in Yogyakarta has built a reactor which was dubbed "Kartini" (the name of a national heroine for women's emancipation). It is a copy of the TRIGA II reactor at PPTN, all components of which were however designed and constructed by Indonesian technologists, except the fuel and control rods and the Al-cylinder, which were of the General Atomics origin but were also installed by Indonesians. We have therefore as such gained experience in handling the civil works, the cooling system, and in building most of the nuclear electronic instrumentations. The Kartini reactor, the capacity of which is 100 kWt, is also used for research and training to gain more experience in the safe operation of a reactor.

By the end of 1983 BATAN has moved one step further towards self-reliance in nuclear technology. The Atomic Energy Research Complex 'at Pasar Jumat, Jakarta was inaugurated. It comprises centres for Radiation and Isotope Application, Nuclear Fuel Exploration and Processing, Dosimetry and Standardisation of Calibration. The newly installed Co-60 irradiator was about 3,000-fold stronger than the 80-Cu which had been installed in 1978.

And now at Serpong, a 30 MWt reactor is being installed by Indonesian experts who are working together with their counterparts from the supplier side, the Interatom of West Germany. The multipurpose reactor, which is expected to be operational by 1987, will be used for training, material testing, etc. The facility is being constructed at a site with possible earthquakes of a maximum strength of one third of that, for which the reactor is designed to withstand. There will also be a facility for the fabrication of fuel elements at the location.

There are now 273 students enrolled in the Nuclear Engineering programme at the Gadjah Mada University, while the bulk of the 73 graduates of the programme are employed by BATAN. The Department of Physics at the University of Indonesia in Jakarta offers Nuclear Instrumentation and Health Physics programmes, with a current enrolment of about 40 students. Last year a three-year diploma programme in nuclear techno-physics and nuclear techno-chemistry to train para technologists commenced in Yogyakarta. The first batch of enrollees, about 140 of them, are all BATAN personnel. BATAN and those universities which offer Nuclear Engineering and Nuclear Science programmes also have staff development programmes in co-operation with various institutions abroad.

In short, in a span of time of over 25 years of its existence BATAN and leading universities in Indonesia have been moving, slowly but surely, towards building up a nuclear technology infrastructure.

KEEPING THE NUCLEAR OPTION OPEN

The idea of building a nuclear power plant was already conceived by its proponents in 1968. Electricity generation in 1971 reached a per capita consumption of only 1.39 per cent of the world average, and in 1974 the per capita total energy consumption was 281 kce, which was only 16.7 per cent of the 1969 world average. Indonesia was too heavily dependent on oil, which constituted 94.1 per cent of its energy sources in 1970. So, in an effort to increase the per capita consumption with a more balanced distribution among the consumers, and to rely on a more balanced mix of energy sources, the National Energy Seminar held in mid 1975 proposed an increase of the share of electrici-

ty in the commercial energy consumption, from 15 per cent to 40-59 per cent by the year 2000. This would require about 64 GWe of the installed capacity, some 23-39 per cent of which to be supplied by nuclear power plants.¹

The feasibility study for the nuclear power plant was completed in 1979, but the construction of the first plant was put off by the government in 1981, pending further study into the matter. The study is expected to be completed later this year. According to the Minister of State for Research and Technology, in 28 years from now Indonesia will need 21 GWe of installed capacity, which is about one third of that proposed in 1975 by the National Energy Seminar. Of this, one third, or 7 GWe must be supplied by nuclear power plants. Offers have come from Canada, France, Germany, Japan, USA and Italy. Preliminary talks have been held with the prospective suppliers, namely West Germany (1984), France, Italy, Canada, and Japan (in March, July, September, and December, 1985, respectively). They also sponsored seminars on the pros and cons about nuclear power.

BATAN is naturally in favour of nuclear power, but the State Electricity Corporation (PLN) seems to want to go for more coal-fired plants before considering nuclear power. The first two units of the planned four-unit coal-fired power plants, the Suralaya in Banten, West Java, were completed in August, 1985. When the other two units will have been completed by 1987, the Suralaya Plant will reach its full capacity of 3.1 GWe. PLN is also completing the inter-connection of the three network systems covering some 43 power plants in Java into one grid. A recent study on the optimisation of Power Plants System, through the dissertation of which the author earned a *cum laude* doctorate degree from the University of Indonesia, estimated that on economic consideration alone 2.2 GWe should be derived from nuclear source by the turn of the century. However, if coal is utilised fully, Indonesia can still wait for another five years before requiring about half that amount of electricity from nuclear power plants.²

Indonesia has not as yet made a decision to go nuclear. Indonesia is not listed among those countries which already have gone, or are in the verge of going nuclear in the 1985 World Survey, either.³ About three months ago, the Director General of BATAN said that when the Indonesian government em-

¹A. Arismunandar, "Some Notes on a National Energy Policy for Indonesia," invited paper, Energy Symposium of the 13th Pacific Science Congress, Vancouver, August 18-30, 1975.

²Zuhal, "Multi-objective Optimization of Electricity Generating System Development," doctorate thesis, University of Indonesia, Jakarta, December 21, 1985.

³R. Masters, "Rise in Capacity But Orders Still Scarce," *Nucl. Eng. Int'l.*, May 1985, pp. 29-44.

mark on the decision-making process on whether or not and when, if at all, Indonesia should go nuclear, it would not be an easy decision to make. There are bound to be collisions of different interests in this problematic issue.

In many developing countries where the government is very strong and where countervailing power practically does not exist, there is normally a big gap between the ideals and the praxis of democracy. The powers-that-be in such countries can make decisions with great dispatch and have the technocrats to carry them out without delay, no matter how unpopular those decisions may be for the people. The government of the ruling coalition in Indonesia is also very strong. But the government recognises Indonesia's shortcomings in the field of nuclear technology, and sees the potential danger of becoming both financially and technologically dependent, if Indonesia were to rush to the decision to go nuclear.

We recognise that in the realms of Weinbergian "transscientificity" and in the domain of Haefelian hypotheticality the methods of natural sciences is necessary but not sufficient, and the technical expertise alone is insufficient for an effective study.⁴ The author is advocating participatory decision-making on matters that relate to this trans-scientific area, the long-term consequences of which could be grave and the entry of which entails vigilance in perpetuity. But the author does not pretend to know how such participation, especially of those who would most likely be affected by the policy choices, can be carried-out in practice. The author could also accept the government's attitude of keeping the nuclear option open, for otherwise we could get ourselves caught unprepared when conventional sources of energy get to be so scarce and prohibitively expensive.

⁴John Francis and Paul Albrecht (eds.), *Facing Up to Nuclear Power* (Philadelphia: The Westminster Press, 1976), pp. 38, 55.

The Industrialisation Programme: A Challenge for Top Corporate Executives

HARTARTO

The last few months have witnessed an outburst of interest in industrial policy in general, not only among academic circles and businessmen, but also in the mass media. There may be a couple of reasons behind this phenomenon. One is the slump experienced by some domestic industries, as a result of the prolonged recession. The second reason is the apparent difficulty to create new markets or even to maintain existing ones, experienced by specific industries in the face of strong competition and protectionist practices by industrialised countries, as well as dumping practices by others.

However, apart from these events, it is a fact that today's world economy have become increasingly complicated. In such a world, the role of top corporate executives has increasingly gained a very determinant influence. This is no less true within the context of an industrialising developing country such as Indonesia. If anything, the supply of qualified indigenous top executives who can hold their own capacity against the international league of corporate professionals, is essential in Indonesia for the development of a strong national industrial base.

Indonesia often prides herself on the abundance of her natural and human resources that she is blessed with. Yet other no less essential resources which are required to factor Indonesia's industrialisation process are still pitifully scarce in comparison with the need. Capital is one. Skilled industrial manpower at the shopfloor level is another. But if there is any scarce resource that can be singled out as the most basic, one can say without hesitation that scarce resource is professional and qualified corporate managers.

Paper presented at the Indonesian Institute for Management Development, at the first graduation ceremony of its MBA Programme. Jakarta, August 22, 1985. Hartarto is currently Minister for Industry.

Trained executives, armed with foresight and long term strategic perceptions, such as MBAs, are expected to have at their command the expertise to mobilise the other resources (natural, human, finance as well as software), and harness them for economic and industrial development.

In this essay the author tries to explain briefly the industrial programmes that are being implemented under the 4th Five Year Development Plan (Pelita IV). It is hoped that this essay will be a useful reference for captains of industry and business.

The recent recessionary developments have put into sharper focus the problems of domestic industries, as indicated among others by: (1) the declining production and sales; (2) the longer terms that must be given to trade debtors, from the usual 1-2 months to 2-3 months; (3) a number of export products facing an uncertain future, as a result of quota restrictions or declining international prices; (4) some manufactures which are not competitive.

Among the industries that currently face serious problems one may mention: (1) the automotive industries; (2) textiles, including spinning, weaving and garment industries.

But there are also industries which manage to sustain economic rates of operations, among others: (1) the export oriented industries which have a range of growth recently between 10-60 per cent annually; (2) industries which support the agricultural sectors.

In view of these developments, the government has throughout the year taken sustained measures to make Indonesia's products more competitive, to promote new export markets, and to expand non-oil export earnings. In the case of those industries suffering a slowdown, co-operative efforts must be taken to search for solutions, which should incorporate improvements in their competitiveness and integrated with the strategic policy objectives already adopted, so that these solutions will mesh with the direction of industrial development in the medium and long term.

FOUR STRATEGIC POLICY ACTIONS

Consequently, besides the measures taken to deal with urgent short term problems, the government has during the last two years adopted the following four strategic policy actions:

1. The promulgation of Act. No. 5/1984 Concerning Industry, which provides a sound and constitutional basis for the direction and sustained development of industries.

2. Pursuant to Article 1 of the above Act, domestic industries are classified for policy purposes into 3 major categories: (1) basic industries: comprising basic metals, engineering industries, electronics, and basic chemicals; (2) downstream and multifarious industries; (3) small-scale industries.

Each category has its specific characteristics in terms of the size of investment, the technology employed, employment of manpower, and mission to be accomplished (whether to promote rapid economic growth or to foster equitable distribution).

The mission to be assigned to basic industries is economic growth and the strengthening of the industrial structure, employing advanced proven technology, which is usually non-labour intensive.

Multifarious industries have either economic growth or equitable distribution -- and, depending on the type of production, may employ advanced proven technology or intermediate technology; while production may be labour intensive or non-labour intensive.

Small-scale industries have one single mission, namely as a conduit for equitable distribution and massive job-creation. Thus production by small-scale industries is labour intensive, using simple or intermediate technology.

3. Taking stock of the present situation of the manufacturing sector, including both its strengths and weaknesses, the Department of Industry has drafted a 6-point National Industrial Development Programme. The major objective of this programme is to accomplish that by the end of Repelita VI the manufacturing sector will be ready for take-off into self-sustained growth. The 6-point Programme may be briefly described as follows:

Point One: Development Process. Development must proceed as far as possible in the direction of deepening the industrial structure, while its implementation must be linked with other economic sectors: such as agriculture, forestry, mining and processing of marine resources. Development projects must take due account of their economic feasibility, including factors of economic scale, choice of technology, and the viability of existing markets, both domestic and overseas. Point One embraces the development of basic chemical industries, basic metal industries (steel, aluminium, copper, etc.), and downstream or multifarious industries. The development of basic industries which process natural resources can lead to the growth of industrial zones, and subsequently foster territorial development and create national economic unity, which constitutes an essential factor in the realisation of the Archipelagic Principle.

Point Two: The development of engineering and electronics industries. In this sub-sector, development efforts are directed towards industrial pro-

ducts with a clear, repetitive and rising market. Markets must be approached with due abundance of applicable standards. While manufacturing operations are arranged through licensing; or, in the first stage through the assembling of imported components, gradually progressing towards full manufacturing, outhouse or inhouse. The implementation of this part of the programme must be strictly based on sound economic principles. In the early stages it is necessary to establish specific trade policies, either through tariff protection or regulation of the trading system, as a temporary measure. The engineering and electronics industries to be developed include: (a) machine tools; (b) agricultural machinery; (c) heavy equipment; (d) electrical machinery; (e) electronics; (f) motor vehicles; (g) railcars; (h) aircraft; (i) ships and offshore machinery and equipment; (j) plant machinery: standard machinery, and non-standard machinery, including light engineering products.

Point Three: The development of a strong and reliable small-scale industry sector. Developing small-scale industries creates greater community participation. It is therefore a vehicle to make the community politically, socially and mentally ready to accept the great changes that will be effected as a result of the industrialisation process. The principal step in the early stage of small-scale industries development is to deal with the marketing problems, to be followed by extension services on the various business aspects that are involved. Generally speaking, the problems relate to entrepreneurship, management, capital, quality, etc. One modality that has already been implemented is where large trading or manufacturing firms lend assistance to the small firms through linkage arrangements (including the foster-parent schemes).

Point Four: Development of export industries. The export programme must be further intensified, so that industrial products can make a real contribution in the expansion of non-oil exports. The export drive may be approached in two ways: (a) industries which have a clear comparative advantage must be promoted as export industries; (b) development of industries, which were initially based on import substitution, into exporting industries. Generally speaking, the exported output should not exceed $\pm 20-30$ per cent of the national installed capacity, as the comparative advantage is contributed by cross-subsidies derived from domestic sales.

On the experience of the last few years, and taking into account the international market situation as well as the potential comparative advantages, Indonesia's export drive should be based on products of the following categories of industries: (a) Multifarious Industries. These would be mainly agro-based, forest-based, plantation-based industries, minerals processing industries, textiles and industries which are labour intensive. Export by these industries should spur economic growth. From the available statistical

data it is evident that many lines can develop into strong export commodities, in view of the opportunities overseas. But the growth of strong export/trading firms is essential to facilitate a substantial expansion of multifarious exports, since most producers are small-scale and unable to undertake their own export programme. It is this category of industries that will be given priority for development once they have a steady overseas market. Most of them (about 95 per cent) would be private firms; (b) Basic Industries. The experience of the last two years suggest that industries to be developed for export drive within this category include basic chemicals i.e. ammonia; cement, including clinker glass; pulp and paper; and other organic and inorganic chemicals. Engineering industries i.e., plate-working industries generally can have a comparative advantage export items include offshore platforms, light engineering products, specific machineries; electronic industries, particularly those capable of developing software and multi-sourcing of raw materials and components. It can be categorically stated here, that industries which are dependent on a single foreign supplier for raw materials and components will not be competitive (like sole agents); (c) Small-scale Industries. Within this category, crafts in particular have favourable export development prospects, if given assistance by trading firms. The government will continue to develop policies for export expansion.

Point Five: Increasing the capacity for applied research and development, and design and engineering (RDE). This goal is to be achieved by promoting the growth of design and engineering companies, until eventually the Indonesian nation is equipped with design and engineering capabilities to underpin the development of national industries, covering industrial plants and plant equipment. This policy must be supported by appropriate monetary and fiscal policies, while the use of foreign loans should be considered on a case by case basis. It should be realised that development of this capability on a national scale requires an inter-disciplinary effort, involving such fields as process-, civil-, mechanical-, electrical-, and architectural engineering, and management of the environmental system. Indonesia's present weakness is in the process technology and, therefore, Indonesia must acquire and develop it, either through licencing or through the development of indigenous expertise. At present Indonesia already has the design and engineering expertise in the field of agro-based and timber-based processing industries. But further growth towards acquisition of sophisticated technology is necessary.

Point Six. Continuous efforts to raise manpower quality. This entails the development of entrepreneurs as well as professionals for top and middle management, of which the MBA Programme of the Institute for Management Development is an excellent example. Included also is the develop-

ment of specialists, and skilled labour for the shop floor. It is gratifying to note that private industry has already taken the lead to establish courses in this area, and hopefully this activity will expand in the near future.

1. The fourth strategic policy action covers the consolidation and improvement of the bureaucracy at the Department of Industry, the operations of the various organisations and associations in the business sector, including business firms and co-operatives, in order to foster sustained, integrated and professional actions in the interest of national industrial development.

The above mentioned strategic policy measures are already in the process of implementation, specially in the case of strategic industries. To ensure that they are effective in achieving the desired industrial growth, the implementation programmes are based on a commodity approach. National studies are made on each commodity, covering various aspects such as available domestic and foreign markets, technology, economic scales ect. National studies on strategic commodities are mostly completed. These studies have to be revised continuously, taking into account the dynamic development of the market (domestic and export), technology, and economies of scale. The analyses reveal new investment opportunities, which are then promoted through the DSP published by BKPM. These studies also suggest the measures to be taken for the further development of existing industries in order to survive against foreign competition, such as: (1) restructuring/modernisation; (2) plant extensions to reach economic scales of operations; (3) or, where necessary, even plant closedowns.

Determined efforts must also be undertaken by industrial firms to raise internal efficiency. The government has also taken supporting measures to upgrade efficiency, through improving the business climate and the optimal utilisation of national installed capacity.

Measures to improve the business climate include: (1) Presidential Directive No. IV/1985 (liberalisation of port and customs handling); (2) Simplification of licensing procedures; (3) Gradual lowering of interest rates; (4) Gradual reduction of protection; (5) Other measures.

In certain industries, the national installed capacity is underutilised, either because the existing capacity is too large, or the domestic market is declining, while these industries are not yet competitive enough for exports.

It should be realised that the declining market is not solely a function of prices. Other factors also come into play, many of which are external. Thus addressing the problem merely through prices will not necessarily alleviate underutilisation.

Therefore, since 1983 the Department of Industry publishes an annual directory on national installed capacity in order, among other things, to promote the fuller utilisation of the existing capacity through BKPM's licensing operations. The directory also indicates which industries should be promoted for exports, and which should have their growth restrained because of fundamental market saturation. This policy is in the national interests, as Indonesia's scarce resources could then be diverted into alternative and more productive sectors.

The mandatory implementation of SII (Indonesian Industrial Standard) is also being actively pushed by the government in co-operation and consultation with private industry, as a means to increase national efficiency as well as the quality of Indonesian manufactures.

Under certain circumstances temporary protection is granted to specific national industries. The government is aware that indiscriminate protection results in a high-cost economy. Hence protection is given only as a temporary measure.

After a careful study of approximately 4,900 products and the part played by the relevant industries, both upstream and downstream, the government has decided to revise the tariff structure, effective as of 1st April 1985: (1) for basic industries, the tariff rates now vary between 0 per cent and 20 per cent; (2) for downstream industries, the maximum tariff is now 60 per cent, with the single exception of passenger cars, which are protected by a tariff of 100 per cent.

It should be appreciated that at present the government still has no surcharge policy. Instead a number of products are subject to non-tariff restraints through an import quota. This is only a temporary measure, and it will be gradually phased out as soon as the government is able to apply surcharge measures, so that the role of the bureaucracy will be diminished accordingly.

For a number of manufactures with a high import content and the components of which still cannot be made locally, the new tariff rates are very low or even zero. In addition, the producers are encouraged to produce their components from a wide range of sources, and to use standard components. This will be a problem for sole agents. But it must be resolved in stages, among others by promoting the manufacture of components locally. The products concerned can thus become more competitive.

While the government attempts to address the problem of national efficiency through various measures -- fiscal, monetary as well as regulatory mea-

asures -- there is also a great responsibility on the part of entrepreneurs to spare no effort in the drive for increasing the efficiency of their firms. This could involve: (1) modernisation of plant and machinery; (2) capital restructuring; (3) quality improvement; (4) improving their service to consumers; (5) implementation of TQC; (6) etc.

Apart from the problem of efficiency, which affects the competitiveness of Indonesia's industries, Indonesia must also address the problem of value added, which determines the nett contribution of the manufacturing sector to GNP.

During Pelita I, II, and III (up to 1981) industrial growth was fairly rapid. But the industrial share in GNP did not rise very much. Hence, from Pelita IV onward, and in consonance with GBHN, the development of national industries must be based as far as possible on the linkage principle: (1) intra-industry linkage (i.e. between basic, multifarious and small-scale industries); and (2) inter-sector linkage (i.e. linkage between the industrial sector and other economic sectors).

The implementation of this programme must in turn be governed by sound economic principles. The industrial sector will thus be able to increase its contribution of value added.

The author has tried to enumerate in brief the programmes which need to be implemented as a sustained effort both by the public sector, i.e. the government and its agencies, as well as by the private sector, in order to accomplish Indonesia's take-off stage by Repelita VI. Although the depressed economic and business conditions over the past two or three years have demanded considerable sacrifices by the nation, not the least in terms of employment and government austerity, it could also be turned into a blessing, if one could use the downturn period to effect plant restructuring and modernisation.

Indonesia is now at the threshold of 1986. And in this coming year as well as subsequent years, the government will continue to constantly enhance the co-ordination between the various departments (Co-ordinating Minister for Economy, Finance & Industry; the Department of Trade, Finance, Industry and others), in order to secure a firm and better direction in industrial development.

As far as possible, most industries will be directed to contribute towards exports, although multifarious industries will continue to be the mainstay of Indonesia's export drive. Next to multifarious industries, it is also expected that certain commodities from the Basic Chemical, Metal & Engineering In-

dustries to contribute a large and growing share of export revenue. Rapid expansion of small-scale industries will actively be pursued, as the main industrial category for employment creation.

While to secure structural deepening of the manufacturing sector, basic chemical and basic metal industries will continue to be expanded through private enterprise (PMA and PMDN).

Foremost among Indonesia's objectives is to increase substantially the competitiveness of her industries, which can only be accomplished by a combination of public policies and determined action by the private sector, guided by Indonesia's long-term strategic interests.

The participation as well as a strong sense of responsibility on the part of entrepreneurs and professional top business executives are clearly essential, in this drive towards the take-off point by Repelita VI.

Preservation of Self-Sufficiency in Rice

A.R. RANGKUTI

Speaking on behalf of the Third World countries, President Soeharto delivered his address on the occasion of the commemoration of the 40th Anniversary of FAO in Rome on 14th November 1985. The appreciation and honour extended by this agency of the UN to the President is particularly due to Indonesia's successful performance in increasing her rice production, so as to enable the country to reach the stage of self-sufficiency.

NATIONAL SUCCESS

In connection with this national success of the increase in rice production, giving directives in his opening speech at the occasion of a seminar on Farming and Fishery staged by the Department for Farming and Fishery of Golkar's Central Executive Board held at the auditorium of Golkar on 24th October, the General Chairman of Golkar, Sudharmono said among other things "In this current depressed World Economic situation with a trend of declining oil prices and oil production cuts for OPEC member countries and the national economic situation full of challenges, one cannot imagine how enormous the difficulties would have been had Indonesia been compelled to import a substantial amount of rice."

Undoubtedly what was said by the General Chairman of Golkar is true and has a solid foundation. This is among other things due to the fact that to date rice, being the staple food of the Indonesian people, has a very strategic position and becomes the barometer in the national socio-economic life. Besides, it seems worthy of note that experience so far has indicated that at the

This article is translated from *Suara Karya daily*, 11th November 1985. A.R. Rangkuti is Member of Parliament of the Republic of Indonesia.

time when Indonesia had to buy rice from the international market its price was sky-rocketing so that it exceeded by far the domestic one. As a consequence, billions of rupiahs had to be provided by the government budget for the subsidy of food such as that of 1979/1980 which amounted to Rp281.7 billion in its realisation.

The increase of rice production, especially as of the initial period of Pelita III (The Third Five Year Development Plan) up to 1984, was a very striking national success. In this regard it should be born in mind that approximately ten years ago some international experts predicted that Indonesia would have imported large amounts of rice in 1985. The Indonesian people should be grateful that the prediction turns out to be quite wrong. On the contrary, in 1985 with an initial rice stock of Bulog (Logistics Board) amounting to approx. 1.7 million tonnes and a production estimate for 1985 which is to total around 26 million tonnes, Indonesia should in fact be able to export her rice.

THE DECISIVE FACTOR IN THE SUCCESSFUL ACHIEVEMENT

For the last 16 years Indonesia's efforts in increasing rice production has been really successful. This is clearly illustrated in the following table.

Table 1

INDONESIA'S RICE PRODUCTION IN 1968 - 1984

Description	1968	1973	1978	1982	1983	1984
Extent of Crops (thousand ha)	8,020	8,403	8,929	8,988	9,162	9,636
Total Production (thousand tonnes of rice)	11,666	14,607	17,525	23,037	24,006	25,825
Average Production (tonnes of rice/ha)	1.45	1.74	1.96	2.54	2.62	2.68

Source: Appendix of the Address of State by the President of the Republic of Indonesia before the House of Representatives on 16th August 1985.

Many factors have also contributed their share in Indonesia's successful achievement in the increase of rice production for the last 16 years. According to the writer's observation those factors are among other things as follows:

The Role of Human and Natural Resources

Indonesia possesses natural resources in the form of land, water, climate and human resources that really enable the country to increase her rice production as illustrated in Table 1.

The Role of Technological Resources

Especially since 1968, the invention of high-yielding varieties of rice with high resiliency and relatively short growing time, such as the PB (Peta Baru) variety originating from the Philippines IRRI (Institutional Rice Research Institute) has given the opportunity to Indonesia to increase her rice production by quite considerable units of area and time.

The Role of Capital Resources

Since the New Order government the confidence of the international world in Indonesia has ameliorated (Indonesia has regained the confidence of the international world) so as to enable the country to obtain long-term soft loans in quite significant amounts from various countries and international monetary institutions.

Aside from that, owing to the increase of oil prices, Indonesia's revenues originating from oil production was quite considerable. In other words, for the last 16 years Indonesia has had the opportunity to mobilise her funds and forces for the purpose of her development including the increase of rice production.

The Role of the Government

Notwithstanding the availability of human and natural resources, technology and capital, if they are not simultaneously and harmoniously utilised and managed, the four kinds of resources will not yield effective results as has been achieved within these last 16 years. It is in the light of this viewpoint that the government under President Soeharto plays a key role. This role is clearly reflected in the policy conducted and efforts made so far to increase the production of rice as elaborated in the following.

National Programme with High Priority

Endeavours to increase rice production have been determined and imple-

mented as a national programme with high priority. In this connection, the self-sufficiency of rice/food constitutes one of the 8 successful achievements decided by the government to be used as a norm for the evaluation of successful performances of Regional Heads.

Carried Out by Special Apparatus

To serve as a motor for the implementation of the programme for the increase of rice production, the government has set up a special apparatus which is structural in nature encompassing the Central Level up to those of the sub-districts (kecamatan)/villages. This apparatus constitutes a Controlling Body for the BIMAS (Mass Guidance) in which various state agencies and banks are involved integrately to tackle the programme of both its planning and operation. At the regional level this Body is run under one Command, i.e. the Regional Head concerned. This special apparatus is equipped with officials who are adequate in terms of their number and qualified and is supported with means and funds appropriated from the Development Budget.

Application of Cultivation Techniques

The government has adopted and consistently implemented the development of the technical application of the cultivation of production called "Panca Usaha" to raise productivity, namely by using: high-yielding varieties, the right cultivation method, sufficient fertilisers, insecticides for the prevention of plant diseases caused by insects and sufficient supply of water and appropriate irrigation. For the implementation of this Panca Usaha scheme the following policies and efforts were carried out:

- The government decides and controls the supply and distribution of the means of production such as fertilisers and chemicals for agriculture at subsidised prices;
- The government monitors research activities and the provision/distribution of high-yielding varieties, particularly those resistant to pests (VUTW);
- The government improves, rehabilitates and builds irrigation networks on a sufficiently large scale.

Special Credit System

In order to enable the farmers to implement in financial terms the Panca Usaha scheme properly and adequately, the Government sets and adopts a

special credit system, which is extended on a large scale, with a relatively easy procedure, low interest rate and the distribution and operation of which reach the villages directly through the Village Units of the Development Banks (BRI).

Intensive Provision of Information

In order that farmers be willing and to enable them to skillfully apply the Panca Usaha technology, the government, through the Department of Agriculture, adopts a system of intensive provision of information to the masses. To this end the Department of Agriculture appoints, provides education and training and mobilise extension workers comprising Penyuluh Pertanian Lapangan (PPL : Field Agricultural Extension Workers), Penyuluh Pertanian Madia (PPM : Medium Agricultural Extension Workers) and Penyuluh Pertanian Spesialis (PPS : Agricultural Extension Specialists) in adequate numbers and supported by sufficient means.

Guidance of Groups of Farmers

In the drive to increase rice production, the farmers' participation is developed through the "groups of farmers" fostered by the government in a directed and intensive manner such as, for example, the Paddy INSUS (Rice Intensification) Programme.

The Floor Price of Paddy, Marketing and Rice Supply

To encourage and stimulate the farmers to raise the production of rice, each year the government fixes the floor price of paddy, which from year to year is inclined to be raised. The fixing of this floor price is also based on the considerations with regard to the rice consumers' interest. In other words, the government always makes efforts to keep a harmony between the interest of the producer farmers and that of the rice consumers.

Being a strategic commodity, the marketing of rice is controlled by the government. It controls the stability and sufficient supply of the commodity from time to time throughout the regions and keeps up the appropriate price level which is not only appropriate for the producer farmers but which is also not burdensome to the consumers.

To maintain the stability and sufficiency of rice supply throughout the regions, the government fixes and implements the policy of national rice stockpiling, the operation of which is carried out throughout the regions and if

deemed necessary market operations are launched to infuse rice in certain markets. In implementing both rice policies, the government sets up a special body for that purpose, namely the Badan Urusan Logistik (Bulog = the Logistics Agency) of which the organisational structure extends as far as all the Level II Regions (Districts).

Reward and Esteem

In the effort to give more incentives to farmers to increase rice production through the Panca Usaha, each year the government holds rice intensification contests with presentation of rewards. Aside from that, on every 17th August, commemorating the Independence Day, model farmers from all provinces (Level-1 Regions) are invited and received by President Soeharto himself at the Presidential Palace.

The Role of Political Stability and Security

For the last 16 years there have been practically no political upheavals and security instability disrupting the life and activities of the society at large. If there have been disturbances in some places, the government has been able to suppress them in a relatively short time. The stability in the fields of politics and security have been maintained in a relatively consistent manner for the last 16 years and has enabled rice farmers and state apparatus to work peacefully and actively in the efforts to increase rice production.

PRESERVATION OF SELF-SUFFICIENCY IN RICE

With the availability of the needed resources, experience and hard work done so far in a really conceptual manner for the last 16 years, it would not be an exaggeration to feel optimistic that in the future it will be relatively easy for the Indonesian people to increase her production of rice as has been made so far. What has even been queried is the following: "Is it really necessary for the Indonesian people to increase their rice production so as to exceed the level of reassured self-sufficiency?" To answer this question it is deemed necessary to present the following brief elaboration.

Surplus

Based on the data of the National Socio-Economic Survey (Susenas) the development of the average national consumption of rice for the last few years has been as follows:

Table 2

THE AVERAGE NATIONAL RICE CONSUMPTION
(kg/capita/year)

	1976	1978	1979	1980	1981	1984
Consumption:	114.30	110.70	106.00	110.76	117.00	106.60

From the above Susenas data one can observe that during the period of 1976-1984 the average national consumption rate does not show a rising trend, one may even say that it is stable, namely at an average of nearly 110 kg/capita/year.

Using the figures of the highest average national consumption rate, i.e. 117 kg/capita/year and those of the total number of the population in 1982: 155.4 million, in 1983: 158.1 million and 1984: 161.6 million people, the national rice situation during the period of 1982-1984 can be illustrated as follows:

Table 3

THE NATIONAL RICE SITUATION IN 1982-1984
(in thousands of tonnes of rice equivalent)

No. Description	1982	1983	1984
1. Rice Production:	23,037	24,006	25,825
2. Use:			
a. Rice Consumption	18,088	18,486	18,907
b. Seed	180	183	193
c. National Stock (10% of the production)	2,304	2,400	2,582
3. Total (2a; 2b; 2c)	20,572	21,069	21,682
4. The Difference between 1 and 3	2,465	2,937	4,143

Notes : The figures are quoted or processed from the Appendix of the Presidential Address of State before the House of Representatives on 16th August 1985.

The picture of the national rice situation illustrated above (Table 3) clearly shows that during the period of 1982-1984 Indonesia has reached the stage of

overproduction compared with the domestic need of rice, or in other words Indonesia already has a surplus of rice.

A Problem

During the harvest time in the rainy season of last February-March 1985 a problem arose concerning the aspect of post harvest rice in the major rice producing areas, particularly in Java. A negative impact that was extensively felt by the rice farmers as a consequence of the last post harvest is the decline of paddy/rice prices thus causing the farmers in general not to benefit from the policy of the government's fixed paddy floor price.

A number of factors have also affected the problem of the post harvest rice during the harvest time of last monsoon. However, it is basically the result of over-supply as compared with the demand for paddy/rice at that time. Although the drop of the price of paddy/rice did not last long, its occurrence in February until March 1985 was an indication of a surplus in rice production as shown in Table 3. In this respect it seems necessary to present the following simple analysis.

According to the Junior Minister for the Acceleration of Food Production who stated at the last discussion on Farming and Fishery, the initial stock of Bulog (Logistic Agency) still stood at about 1.7 million tons of rice equivalent to that in January 1985. Owing to the still existing quite substantial stock of rice in the warehouses of Dolog (Depot Logistik – regional Logistic Agency), it is but natural that during the harvest time of last February-March 1985, Bulog faced difficulties in the supply of paddy/rice for the national stock. Meanwhile, owing to the estimate that the 1985 production would be higher than that of 1984, it seems logical if Bulog is to make a calculation that apart from meeting the needs of civil servants and members of the Armed Forces, the existing stock and that to be purchased, could not be channeled to the market since Bulog's market operation would lower the market price of rice more. This means that Bulog had to keep its stock for quite a long period of time. In this connection it seems but natural that Bulog tries to purchase unhulled rice with the desired quality to enable the agency to store it for a longer period of time compared with the previous stocks.

This simple analysis is none other than an attempt to have a more objective view of the current rice situation and to relate it to the estimate of what may happen in the harvest season of next February-March 1986 and beyond.

In this connection it is worth noting the news mentioning that in the month

of October last, Bulog's stock was still 3.5 million tonnes and that up till the end of the year mentioned stock will not be able to be taken out.

With only an initial stock of approx. 1.7 million tonnes, during last harvest time of February-March Bulog already had to cope with so many difficulties in supplying the national rice stock. One can imagine how formidable the problem would be for Bulog, if during the forthcoming harvest time of February-March 1986 the initial stock would still amount to 3.5 tonnes or more.

Possibilities of Rice Export

As aforementioned, experience so far has shown that Indonesia, being the biggest rice consumer, has exerted a very dominant influence upon the development of the price of rice at the international market. This is reflected by the relatively low price of rice at the international market lately, i.e. around US\$200 per tonne. With the rice purchase price of Rp 285/kg at the Dolog (regional) level, Bulog will obviously suffer a considerable loss if she is to export rice on a commercial basis. The loss will be even greater if, in compliance with the people's wish, the floor price of paddy is to be continuously increased in the future. In other words in the years to come up to an unforeseeable future, Indonesia will not likely be able to export rice on a commercial basis.

From the analyses in part III no. 1 up to 3, the writer opines that in compliance with the 1983 GBHN (The Guidelines of State Policy) a consolidated and "safe" self-sufficiency in rice constitutes the target needs to be maintained pending the nation's capability to export rice.

A SAFE SELF-SUFFICIENCY IN RICE

According to the writer, a simple formulation of a safe self-sufficiency in rice is that rice production on a national scale should suffice :

- a. to meet the need of national rice consumption.
- b. to be used as seeds.
- c. to supply the national rice stock amounting to 25 per cent of the national consumption need per year (national consumption need for 3 months).

Using the above mentioned simple formulation and based on the following calculations:

- a. with the population totalling 161.6 million people in 1984 and an average population growth rate of 2.2 per cent annually;
 - b. the average national consumption being 120 kg of rice/capita/year,
- the estimated production volume (in real terms) for a safe self-sufficiency in rice can be presented in the Table 4.

Table 4

CRUDE ESTIMATE OF RICE PRODUCTION TARGET (THOUSAND TONNES IN RICE EQUIVALENT) FOR A SAFE SELF-SUFFICIENCY ON A NATIONAL SCALE

No.	Description	1985	1986	1987	1988	1989	1990
1.	Consumption	19,848	20,280	20,720	21,180	21,648	22,128
2.	National Stock	4,964	5,070	5,176	5,295	5,295	5,532
3.	Seeds	197	201	205	209	213	217
4.	Production	25,009	25,551	26,101	26,684	27,273	27,877

Note: The needs of civil servants and ABRI personnel are included here. The crude estimate at Table 4 certainly calls for further study and research.

The crude estimate of the targeted production as shown in Table 4 undoubtedly needs to be accompanied by various appropriate policies and efforts. One of them that the writer considers very appropriate is President Soeharto's recent instruction to Junior Minister for the Acceleration of Food Production, Wardoyo, to implement the Development Programme of Growing Soybean on an area of 400,000 ha this year.

In conclusion, the writer feels the need to point out that with the elastic demand for a change of the price of rice which is nearly zero, Indonesia has to be more cautious in planning the targeted rice production with the accompanying policies and efforts to be made, both in terms of its pre and post harvest activities. Indonesia seems likely to succeed in that with her successful 16 years of experience.

The Role of Manufacturing in Labour Absorption: Indonesia during the 1970s

Mayling OEY

INTRODUCTION

In the context of Indonesia's history the decade of the 1970s was characterised by rapid economic growth, with an average 7.8 per cent annual real growth in GDP between 1971 and 1980 (*Nota Keuangan* 1983/1984, Table II.2: 17). Industrial growth was even higher. Value added in manufacturing increased more than threefold during the period, or an average of 14 per cent per annum. Consequently, the share of the manufacturing sector in overall GDP rose from 9 to 15 per cent (Table 1).

The boom in the manufacturing sector was primarily a function of growth in the modern sector. Following a period of economic and political uncertainties in the early to mid-1960s, a new approach towards economic development was taken. It has been argued that the following factors were most conducive to the rapid growth of the modern sector in manufacturing. First, as a consequence of liberalisation and simplification in the foreign trade regime, raw materials and capital goods became more readily available. Second, reduction of preferential treatment for state enterprises has fostered growth in the private sector along with the state sector. Third, the 1967 Foreign Investment Act and the 1968 Domestic Investment Act, which were far more attractive to investors than earlier regulations, resulted in the rapid expansion of the modern sector since that time (McCawley, 1981).

This article has been published in *Urbanization and Migration in ASEAN Development* by Naohiro Ogawa, Ed. (Tokyo: National Institute for Research Advancement, 1985). Dr. Mayling Oey is Research Associate, Institute for Economic and Social Research, Faculty of Economics, University of Indonesia.

Table 1

VALUE ADDED AND SHARE OF MANUFACTURING IN GDP,
INDONESIA, 1976—1980 (at 1973 constant prices)

Year	Value	Share of GDP %
	(in billion Rp. and 1973 prices)	
1971	490.0	8.8
1972	564.0	9.3
1973	650.0	9.6
1974	755.0	10.4
1975	847.7	11.1
1976	930.0	11.4
1977	1,057.7	11.9
1978*	1,235.6	12.9
1979*	1,395.3	13.7
1980*	1,704.6	15.3

Source: Republik Indonesia, *Nota Keuangan dan Rancangan Anggaran Pendapatan dan Belanja Negara Tahun 1983/1984*, Tabel II.2.: 17.

* Adjusted figures.

Notwithstanding such achievements, however, Indonesia is still at an initial stage of industrialisation. Even among neighbouring ASEAN nations Indonesia is the least industrialised. Data for 1977 indicate the following shares of the manufacturing sector in overall GDP: Indonesia 10 per cent, Malaysia 18 per cent, Philippines 24 per cent, Singapore 22 per cent, and Thailand 21 per cent (World Bank, 1980).

Not surprisingly, though growing in importance, the Indonesian manufacturing sector absorbs only a small proportion of the workforce. It is suggested that growth in the manufacturing workforce has been less a result of additional investments than of the structure of the sector, which predominantly consists of cottage and small scale industry located in rural areas where growth in the number of workers has been due to population pressure. Rapid population growth, even at constant labour force participation and unemployment rates, results in a growing workforce. Due to saturation or near saturation in the agricultural sector, especially on Java, other sectors of the economy, including manufacturing, have had to accommodate some of those in dire need of employment. It is within such a framework that the description of growth of the Indonesian manufacturing workforce will be presented.

THE DATA

The data used in this paper are limited to the 1971 and 1980 population censuses conducted by the Biro Pusat Statistik (BPS, Central Bureau of Statistics). Processing of the detailed population characteristics were carried out in two stages. The first stage involved a 10 per cent subsample and the second stage covered the overall sample. In the 1971 round the total sample comprised 3.8 per cent of all census blocks and in the 1980 round a slightly larger percentage was included, that is about 5 per cent of all census blocks. The results of the two-stage processing were published as Series C and D for the 1971 Census and Series S1 and S2 for the 1980 Census.

Between the two published series of the 1971 Census there was a substantial difference in unemployment rates, namely 2.2 and 8.8 per cent according to Series C and D respectively. This difference was mainly a result of different data cleaning and imputational procedures. Some analysts are of the opinion that neither series reflect the true situation. They suggest therefore, to adjust most of the data before estimating unemployment rates (Jones, 1974 and Sundrum, 1975b). Suharto and Sigit (1977), on the other hand, recommend using Series C to reflect the 1971 situation, for the tabulations more appropriately followed the concepts of unemployment used in the data collection procedures. In accord with the latter position, in this essay we use the totals from Series C and the composition derived from the more detailed tabulations published in Series D.

The same procedures were followed with the 1980 Census data. The first stage, which constituted a 10 per cent subsample, was published as Series S1, while the results of the overall 5 per cent sample of all census blocks were published as Series S2. The earlier problems were avoided in processing the 1980 data, and differences between S1 and S2 reflect only differences in sample size. Assuming that the total sample represents the true situation better, the results of S2 are used here.

It should be noted here that, reliance on only the last two censuses to reflect changing patterns and trends in the workforce during the 1970s carries with it inherent weaknesses, but intercensal data, is seriously distorted by seasonality and other statistical artifacts. This is shown by the rather sizable fluctuations in the implied growth rates based on the recorded statistics (see for instance BPS, 1983a, and the evaluations by Esmara, 1981; Bukit and Bakir, 1983; and Lluch and Mazumdar, 1983). The main problem is that the data are not exactly comparable, due to differences in timing, sampling, definitions, and collection procedures.

In studying the growth of the Indonesian labour force on the basis of the 1961 and 1971 Census returns, Jones (1974) and Hidayat (1976) addressed the issue of declining labour force participation rates by recommending adjustment procedures for the 1971 results. Further modifications were introduced by Bukit and Bakir (1983) who hold that Sakernas data better reflect the true situation and thus used the average of the 1976, 1977 and 1978 Sakernas as the basis to adjust the 1971 and 1980 results. Relative to the 1961 Census and the Sakernas results, the labour force participation rates indicated by the 1971 and 1980 Censuses were considered to be too low while the category of persons coded as "others" was thought to be too high. Hence adjustments were made to raise the labour force participation rates, and therefore also the labour force. Based on the assumption that some of those categorised as "others" were in fact discouraged workers, and arbitrary proportion of those classified as "others" was added to the labour force. Since, however, according to a labour force approach, discouraged workers belong to the unemployed category the results of the above exercise are not considered here since the emphasis in this paper is on the working population. Thus we will rely on BPS published data to reflect the 1971 (Series C and D) and 1980 (Series S2) situation.

Workforce data from the 1971 and 1980 Censuses are not strictly comparable due to a definitional change. To be classified as working in 1971, one had to have worked for at least two days during the preceding week, while in 1980 the criterion was only one hour. In the 1980 Census, however, respondents were also asked the number of days they worked during the preceding week, and tabulations indicate less than one per cent difference between the size of the workforce as defined by a minimum of two days and by one hour (see Tables 38 and 39 of series S2). Because most Census tabulations were done by the one hour criterion, these data will be used to reflect the 1980 situation.

GROWTH IN THE WORKFORCE

Growth of the workforce in Indonesia has primarily been a function of growth in the working age population, defined as the population aged 10 years and over. The data in Table 2 show labour force participation of almost exactly 49 per cent in both years. On average, the working age population grew at 2.9 per cent per annum while the average annual rate of growth of the workforce was 3.0 per cent.

The decade of the 1970s was not only characterised by high growth in the labour force but also by structural changes. Although still important in absorb-

Table 2 THE WORKING AGE POPULATION AND THE WORKFORCE, INDONESIA 1971 AND 1980

Category	1971			1980			Growth		
	No.	%	No.	No.	%	No.	%	r(%)	(Unit: 1,000 persons; %)
Population 10 years and over	80,426		104,353	23,927				2.86	
Not in the labor force	40,326		51,931	11,605				2.78	
Labour force	40,100		52,421	12,321				2.94	
Seeking work	890		868						
Working	39,210	100.0	51,553	12,343	100.0		100.0	3.01	
Agriculture	24,772	63.2	28,834	4,062	55.9		32.9	1.67	
Mining and quarrying	90	.2	387	297	.8		2.4	16.03	
Manufacturing	2,932	7.5	4,680	1,748	9.1		14.2	5.14	
Utilities	38	.1	66	28	.1		.2	6.07	
Construction	737	1.9	1,657	920	3.2		7.5	8.90	
Transport and communications	916	2.3	1,468	552	2.9		4.5	5.18	
Trade, finance, services and others	9,724	24.8	14,148	4,424	27.4		35.8	4.12	
Not stated			313	313	.6		2.5		

Sources: 1971, Biro Pusat Statistik, *Population Census*, Series C.1980, Biro Pusat Statistik, *Population Census*, Series S2.

Notes: These data are not exactly comparable due to differences in coverage. The 1980 data include rural West Irian and East Timor. These areas are, however, sparsely populated and contributed only minimally to the total.

Due to rounding the numbers do not necessarily add up.

r = Average annual rate of growth, calculated using the exponential formula.

$I_n = (P_t/P_0)^{1/t}$; where $t = 9.1$ years.

ing additional people needing income earning opportunities, the proportion of the workforce employed in agriculture declined from 63 to 56 per cent. Although Indonesia is still basically an agricultural society, population pressure has made agricultural expansion, in terms of both land under cultivation and intensity of cultivation, increasingly more difficult. This has been particularly the case on Java where about three-fifths of the population reside.

Not only are the structural changes reflected by differences in the proportions of the workforce employed in each sector, but changes can also be observed in the age specific workforce participation rates (Table 3). Although little change can be observed in the overall workforce participation rates, even after controlling for residence and sex, substantial differences are noted in the age specific rates. Participation has declined among the youngest and oldest age groups, those aged 10-14 and 55 years and over, and has increased at ages in between. The decline in rates among the very young, which occurred for both sexes and in both urban as well as in rural areas, is primarily due to the expansion of primary school facilities which was started in 1973 and is known as the SD Inpres programme. According to the 1971 Census 58 per cent of the population aged 10-14 years were attending school (Series D, Table 36: 176), while in 1980 the percentage rose to 75 per cent (Series S2, Table 39.9: 168). The decline in the rate for the oldest age category is, however, more difficult to explain. It could be that the increase in workforce participation rates among younger people has allowed relatively more older people to withdraw from the workforce, but this possibility needs to be verified.

Two explanations are offered for the increase in workforce participation rates among those aged 15-19 to 50-54 years. First, there was an improvement in coverage. Second, there may have been a combination of expansion in employment opportunities and as well as relatively more people being forced to participate in income earning activities.

In her analysis of the 1971 Census, Alatas (1974) noted a relative "shortage" of males compared to females, especially in the productive ages. Following an earlier suggestion offered by McDonald (unpublished), Alatas explained the shortage in terms of a possible underenumeration of males relative to females because males tend to be more mobile than females especially during their younger productive ages. Census data in Indonesia are collected primarily on a *de jure* basis with a "usual residence" definition based on a time reference of six months. Hence the higher degree of mobility among employed males may have caused them to be underenumerated. This argument is supported by Gardiner (1983), whose analysis indicates improvement in coverage during the 1980 Census. This could have thus led to an apparent increase in workforce participation rates among males between the ages of 15-19 and 50-54 years.

WORKFORCE PARTICIPATION RATES BY AGE, SEX AND RESIDENCE,
INDONESIA 1971-1980

Table 3

Age	Urban + Rural						Urban						Rural					
	Males		Females		M + F		Males		Females		M + F		Male		Female		M + F	
	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980
10-14	17.6	12.6	14.0	9.1	15.9	10.9	7.6	3.1	9.9	4.1	7.4	3.6	19.8	15.2	15.6	10.6	17.8	13.0
15-19	46.1	46.0	27.6	30.0	36.8	37.8	28.4	23.5	15.5	20.4	22.0	21.9	51.0	54.2	30.8	33.6	40.8	43.8
20-24	72.2	77.0	30.9	32.9	49.3	53.2	59.1	61.5	21.3	25.8	39.4	43.3	76.3	83.4	33.4	35.4	52.1	56.9
25-29	88.6	91.2	33.5	35.3	58.1	63.0	85.3	86.4	24.4	28.0	54.1	57.9	89.4	92.8	35.4	37.6	58.9	64.6
30-34	90.9	94.4	37.4	38.8	62.2	66.2	91.8	93.4	27.6	29.4	60.0	61.8	90.6	94.8	39.3	41.6	62.8	67.5
35-39	92.7	95.1	39.8	42.1	66.1	68.1	93.5	94.9	30.0	32.0	60.8	63.6	92.5	95.1	41.8	44.8	67.1	69.3
40-44	91.9	94.6	42.2	45.4	66.9	69.5	91.8	94.2	33.9	36.2	63.5	65.5	91.9	94.7	43.8	47.8	67.6	70.6
45-49	90.5	93.5	43.9	46.3	67.9	69.4	86.6	91.4	32.1	35.9	60.7	62.7	91.2	94.1	46.1	48.9	69.3	71.1
50-54	86.7	89.5	42.0	43.8	64.0	66.8	81.4	82.7	30.8	33.7	55.8	58.3	87.8	91.2	44.1	46.4	65.6	68.9
55+	72.0	69.5	30.3	28.8	50.3	48.3	54.2	54.7	21.5	20.7	37.0	36.7	75.2	72.9	31.9	30.7	52.8	50.9
10+	67.1	67.5	31.5	31.9	48.8	49.4	58.2	57.5	21.4	23.5	40.0	40.8	69.1	70.5	33.7	34.4	50.8	52.1

Source: Same as Table 2.

(Unit: %)

If the argument is accepted then the question arises why a similar rise in female workforce participation is also observed. Expanding employment opportunities and an increasing number of people who are forced to join the workforce work together to produce the result. Rapid economic growth during the decade of the 1970s was partly stimulated by expanding domestic and foreign investments, the climate of which was made favourable by the passage of the 1967 and 1968 Foreign and Domestic Investment Acts. Until mid 1980, 801 foreign investment projects had been approved (excluding energy, banking and insurance), out of which 70 per cent or 559 projects were in manufacturing (Thee, 1982). Between 1968 and fiscal year 1980/1981, 3,592 domestic investment projects were approved, of which 2,588 or 72 per cent were in manufacturing (*Nota Keuangan* 1983/1984, Table VII.1: 233). It has been noted however, that the type of approved investments (both public and private, in a labour abundant society as Indonesia have tended to favour high capital/labour ratio projects, hence rather limited new employment opportunities were created. Expanding employment opportunities in manufacturing and also in trade and services has been very noticeable especially in the Capital of Jakarta and its surrounding area. Formal sector manufacturing and service enterprises have particularly favoured relatively young females. It is therefore not surprising to observe substantial increases in urban female workforce participation rates, especially among those belonging to the age categories between 15-19 and 25-29 years.¹

Rather lower increases in workforce participation rates are observed among both urban and rural males, urban females over 30 years and rural females. While for males, as suggested above, part of the apparent rise in workforce participation is attributable to improve coverage, part of it reflects a real trend. The slight upward trend in workforce participation may be due to increasing relative poverty. Even without an absolute decline in real income, increases in relative poverty in comparison to higher economic classes may produce such a trend.

PATTERNS OF GROWTH IN THE WORKING AGE POPULATION AND THE WORKFORCE

Changes in definitions between the 1971 and 1980 Censuses create problems in separating statistical effects from real trends resulting from socio economic changes. See, for instance, the data presented in Table 4. The statistics indicate that the urban population aged 10 years and over grew almost twice as fast as

¹An analysis of female migrants to urban areas using SUPAS II data (Smith, 1981) supports this suggestion.

Table 4
POPULATION 10 YEARS AND OVER BY RESIDENCE AND SEX, INDONESIA, 1971-1980

Residence and Sex	1971				1980				Growth		
	No.	%	SR	No.	%	SR	No.	%	r	%	r
Indonesia	80,426	100.0	94	104,353	100.0	97	23,927	100.0	2.86		
Urban	14,617	18.2	98	24,091	23.1	98	9,474	39.6	5.64		
Rural	65,809	81.8	94	80,262	76.9	96	14,453	60.4	2.21		
Males	39,049	48.6		51,303	49.2		12,254	51.2	3.04		
Females	41,378	51.4		53,050	50.8		11,672	48.8	2.77		
Java	52,314	65.0	93	66,129	63.4	95	13,815	57.7	2.61		
Urban	9,780	12.2	94	16,946	16.2	97	7,166	29.9	6.23		
Males	4,749	5.9		8,324	8.0		3,575	14.9	6.36		
Females	5,031	6.3		8,622	8.2		3,591	15.0	6.10		
Rural	42,534	52.9	92	49,184	47.1	95	6,650	27.8	1.61		
Males	20,418	25.4		23,941	22.9		3,523	14.7	1.76		
Females	22,116	27.5		25,243	24.2		3,127	13.1	1.46		
Outside Java	28,112	35.0	98	38,223	36.6	99	10,111	42.3	3.43		
Urban	4,837	6.0	107	7,145	6.8	103	2,308	9.6	4.38		
Males	2,496	3.1		3,628	3.5		1,132	4.7	4.20		
Females	2,341	2.9		3,516	3.4		1,175	4.9	4.57		
Rural	23,275	28.9	96	31,078	29.8	98	7,803	32.6	3.23		
Males	11,385	14.2		15,409	14.8		4,024	16.8	3.38		
Females	11,890	14.8		15,669	15.0		3,779	15.8	3.08		

Source: Same as Table 2.

Notes: Same as Table 2.

SR = Sex Ratio, which is the number of males per 10 females.

the overall working age population. The intercensal growth of the urban working age population can normally be attributed to three factors; urban fertility levels preceding the 1971 Census; in-migration to urban areas; and expansion of administrative boundaries (as was the case with Jakarta in 1976). However, an additional factor which contributed to the apparent growth rates in Indonesia was the change in definitions of urban place between the 1971 and 1980 Censuses. According to BPS (1979) and Sigit and Sutanto (1983), if the 1980 definition were applied to the 1971 Census, then the urban population in 1971 would have been raised by two per cent, would reduce the average annual growth rate to 4.3 per cent per year. Thus, about a fourth of the apparent growth is merely due to a change in definition.

In addition, greater underenumeration among males than among females in 1971 may have contributed to the appearance of higher growth among working age males relative to working age females (Table 4).

The data indicate slower growth of the working age population on Java than Outside Java. Part of this difference is due to past lower fertility on Java (see Cho *et al.*, 1976), and part is due to net out-migration from Java to the other islands (Oey, 1985), which is in turn strongly affected by the transmigration programme. The growth rate of the urban working age population, on the other hand, appeared substantially higher on Java, but the change in the urban definition clearly affected Java more than Outside Java. Alternatively, it also reflects a real trend, for economic activity which has been increasing more rapidly on Java.²

Differences in the growth of the workforce parallel those of the working age population (Table 5). Some slight differences between the two groups can, however, be observed. Except for urban males, the growth of the workforce was slightly faster than the growth of the working age population. The largest differences are found in rural Java, although part of the apparent difference in growth rates is due to improvements in coverage of the workforce and another part to the change in the definition of the workforce.³ On the other hand, part of the difference reflects real trends resulting from expanding employment opportunities and an increase in the number of those forced to join the workforce.

²Between 1968 and fiscal 1980/1981, of a total of 3,592 approved domestic investment projects, 2,385 or 66 per cent were located on Java, while out of 782 foreign investment projects approved between 1967 and fiscal 1980/1981, 534 or 68 per cent were located on Java (*Nota Keuangan* 1983/1984, Tables VII.3 and VII.5: 235 and 238).

³If for 1980 we were to use the two-day reference period, then the difference would decline slightly.

THE WORKFORCE BY RESIDENCE AND SEX, INDONESIA 1971 AND 1980

Table 5

THE WORKFORCE BY RESIDENCE AND SEX, INDONESIA 1971 AND 1980

(Unit: 1,000 persons; %)

Residence and Sex	1971		1980		Growth		GRI P _w /P ₁₀₊	
	No.	%	SR	No.	%	No.		%
Indonesia	39,210	100.0	210	51,553	100.0	12,343	3.01	1.05
Urban	5,796	14.8	267	9,726	18.9	3,930	5.69	1.01
Rural	33,414	85.2	192	41,827	81.1	8,413	2.47	1.11
Males	26,184	66.8		34,619	67.2	8,435	3.07	1.01
Females	13,026	33.2		16,935	32.8	3,909	2.88	1.04
Java	25,757	65.7	194	33,026	64.1	7,269	2.73	1.05
Urban	3,983	10.2	231	7,142	13.9	3,159	6.42	1.03
Males	2,781	7.1		4,875	9.5	2,094	6.17	.97
Females	1,202	3.1		2,267	4.4	1,065	6.97	1.14
Rural	21,775	55.5	189	25,883	50.2	4,108	1.90	1.18
Males	14,229	36.3		17,141	33.2	2,912	2.05	1.16
Females	7,546	19.2		8,743	17.0	1,197	1.62	1.11
Outside Java	13,453	34.3	214	18,527	35.9	5,074	3.52	1.03
Urban	1,813	4.6	380	2,584	5.0	771	3.89	.89
Males	1,436	3.6		2,003	3.9	567	3.66	.87
Females	378	1.0		581	1.1	203	4.72	1.03
Rural	11,639	29.7	198	15,944	30.9	4,305	3.46	1.07
Males	7,730	19.7		10,600	20.5	2,862	3.46	1.02
Females	3,901	10.1		5,344	10.4	1,443	3.46	1.12

Source: Same as Table 2.

Notes: Same as Table 4.

GRI = Growth Rate Index, or Ratio of growth rates between the workforce and working age population.
 P_w/P_{10+}

The higher growth rate for the male compared to the female workforce, shown in Table 5, raises the question of what is happening to the role of women in the development process. It appears, however, that the difference is mainly due to differences in the growth of the working age population.

Workforce participation rates of women are rising in urban and rural Java as well as rural Outside Java. This may well be a real trend following the expansion of employment opportunities for urban women on Java combined with economic pressures that have forced more rural women to join the workforce.

MANUFACTURING WORKERS

The labour absorptive capacity of the manufacturing sector has been widely discussed (see for instance Sundrum, 1975a; Dongest *et al.*, 1980; McCawley and Tait, 1979a and 1979b; Dapice and Snodgrass, 1979; and McCawley, 1981).

Using the 1961 and 1971 Censuses, Sundrum (1975a) discussed patterns of change in employment in manufacturing during the decade of the 1960s. Donges *et al.*, (1980) refers to the latter years of the decade of the 1960s, after the passage of the Foreign and Domestic Investment Acts, and to the first half of the 1970s. More relevant to this essay are McCawley and Tait (1979a), the resulting comments by Dapice and Snodgrass (1979), and the refutation by McCawley and Tait (1979b).

In response to the growing concern regarding the role of large and medium manufacturing enterprises in creating employment opportunities while displacing the workers in the small and cottage sectors, McCawley and Tait (1979a) estimated the growth in employment in the modern sector of manufacturing between 1970 and 1977 using the 1974/1975 Industrial Census and the annually collected Industrial Statistics.

After adjustment, McCawley and Tait estimated the number of workers in large and medium firms in 1973 and 1974, and arrived at an average annual growth rate in total manufacturing employment of 12 per cent for the period 1970-1973 and 9 per cent for the period 1974-1977. Excluding the estate sector (which they argued included agricultural workers) the implied growth rates are 13 and 9 per cent per annum for the same periods.⁴

⁴Due to a change in Census definition, the growth of employees in the modern sector for the overall period of 1970-1977 cannot be calculated.

The results of McCawley and Tait support the notion that relatively high growth in employment was created by recent developments in large and medium manufacturing enterprises. Their confidence in the result stems from other observations at a disaggregated level, which they find to be consistent with other reports on development during the period. Between 1970-1973, employment in the food sector increased rapidly as a consequence of rapid expansion in rice mills. The wood industry, too, grew rapidly over the 1970-1977 period as sawmilling and plywood production expanded. Investments and output in chemical products, nonmetallic minerals and electrical goods also grew rapidly during the period, supporting high growth in employment in those sectors. But the authors warned that even if the modern sector of manufacturing were to grow at a high rate, it will not solve Indonesia's unemployment problems. Moreover they contended that currently available data would not allow them to estimate the impact of the growth in large and medium firms on employment in small and cottage establishments. From rather scanty data on regional incomes, the authors conjectured a 7-8 per cent growth in the number of workers in small and cottage units.

Contrary to McCawley and Tait, Dapice and Snodgrass (1979) argued that rapid growth in manufacturing employment occurred in small and cottage firms rather than in large and medium enterprises. The conclusion was derived from an earlier study by Snodgrass (1979), who claimed that most, if not all, additional jobs in the manufacturing sector in the period 1970-1976 were provided by establishments with 1-9 participants. These conclusions are drawn from two data sets: (1) establishment surveys carried out in 1970, 1971 and 1974; and (2) the 1971 Population Census and the 1976 Intercensal and National Labour Force Survey (Supas and Sakernas).

Dapice and Snodgrass' disagreement with McCawley and Tait, regarding the rapid growth in employment in large and medium manufacturing enterprises, stems from an argument relating growth rates in employment and value added. If employment growth in large and medium size firms was indeed in the order of 11-13 per cent per annum since 1970, it would imply that it equalled or even exceeded the growth in real value added. Citing the experience of other developing countries, however, Dapice and Snodgrass held that during a spurt of import substitution industrialisation, as was implemented in Indonesia at the time, employment usually grew far slower than value added, thereby raising levels of productivity as measured in terms of value added per worker. Indonesian productivity could have risen only in the modern sector of large and medium size establishments, and hence little growth in employment could be expected there. Thus, so their agreement went, if employment growth in the overall manufacturing sector were to have occurred, then it must be attributed to small scale and cottage industry.

McCawley and Tait (1979b) objected on several counts to the criticisms leveled by Dapice and Snodgrass. First, McCawley and Tait point out that the 1971 Population Census data used by Dapice and Snodgrass are not sufficiently comparable to the 1976 Supas and Sakernas data to establish the growth in workers in small scale and cottage industries. They held that the annually collected Industrial Statistics were far better adapted to determine growth in workers in medium and large firms. Second, regarding the low or little implied productivity rise in medium and large firms (employment growth of 11-13 per cent and real value added growth of 11-8 per cent per annum), pointed to by Dapice and Snodgrass, McCawley and Tait show a real growth in the order of 2-4 per cent for the period 1970-1977. According to McCawley and Tait's estimates, during the same period overall employment grew at 9-11 per cent and real output grew at 13-14 per cent, thus implying a growth in productivity of 2-4 per cent (Table 2: 136). McCawley and Tait also maintained that the international comparisons offered by Dapice and Snodgrass involved selected countries that are at different levels of development. Third, McCawley and Tait further objected to the implication drawn by Snodgrass and Dapice regarding the growth of workers in the small and cottage sector.

What can be said about the above controversy? The conclusions depend very much on the data employed. We agree that employment grew in both the modern sector and in the small and cottage industries.

We begin from the assumption that the growth of the manufacturing workforce is, for the most part, a function of the growth in the working age population as well as the growth on the total workforce, because manufacturing in Indonesia is dominated by cottage and small scale enterprises which are labour-intensive and entrance is relatively easy. It is also held that for a number of workers, limitations in employment in agriculture have forced them to join the manufacturing workforce. Besides, expansion of employment opportunities in this sector, which have especially favoured urban females, cannot be ignored. Taking these factors together it is not surprising to note that employment grew substantially faster than working-age population (Table 6).

It is equally interesting to note that the overall growth rate of manufacturing workers was lower for females than males (4.3 compared to 5.9 per cent per annum). Hence we observe an increase in the sex ratio from 107 to 123 males per 100 females. Even though the sex ratio declined in urban areas, the far steeper rise in rural areas outweighs the urban pattern. The growth rate indexes too indicate values substantially higher for males than females, thus suggesting that the rise in masculinity, as indicated by the sex ratios, is not due to differences in the growth of the working age population or the workforce. These statistics raise more questions than can be answered satisfactorily on the

WORKERS IN MANUFACTURING BY RESIDENCE AND SEX, INDONESIA 1971 AND 1980

(Unit: 1,000 persons; %)

Residence and Sex	1971				1980				Growth				GRI		
	No.	%	SR	No.	%	SR	No.	%	No.	%	r	P_{WM}/P_{10+}	P_{WM}/P_W	P_{WM}/P_W	
Indonesia	2,932	100.0	107	4,680	100.0	123	1,748	100.0	5.14	1.78	1.71				
Urban	661	22.5	231	1,362	29.1	199	701	40.1	7.94	1.41	1.40				
Rural	2,270	77.5	87	3,318	70.9	102	1,048	59.9	4.17	1.89	1.69				
Males	1,515	51.7		2,585	55.2		1,070	61.2	5.87	1.93	1.91				
Females	1,417	48.3		2,095	44.8		678	38.8	4.30	1.55	1.49				
Java	2,286	78.0	111	3,574	76.4	123	1,288	73.7	4.91	1.88	1.80				
Urban	505	17.2	207	1,137	24.3	187	632	36.2	8.92	1.43	1.39				
Males	341	11.6		741	15.8		400	22.9	8.53	1.34	1.38				
Females	165	5.6	207	396	8.5	187	231	13.2	9.62	1.58	1.38				
Rural	1,780	60.7	94	2,437	52.1	102	657	37.6	3.45	2.14	1.82				
Males	861	29.4		1,230	26.3		369	21.1	3.92	2.23	1.91				
Females	920	31.4		1,207	25.8		287	16.4	2.98	2.04	1.84				
Outside Java	646	22.0	95	1,106	23.6	124	460	26.3	5.91	1.72	1.68				
Urban	156	5.3	343	226	4.8	277	70	4.0	4.07	.93	1.05				
Males	120	4.1		166	3.5		46	2.6	3.57	.85	.98				
Females	35	1.2		60	1.3		25	1.4	5.92	1.30	1.25				
Rural	490	16.7	65	880	18.0	103	390	22.3	6.43	1.99	1.86				
Males	193	6.6		447	9.6		254	14.5	9.23	2.73	2.67				
Females	296	10.1		433	9.2		137	7.8	4.18	1.36	1.21				

Source: Same as Table 2.

Notes: Same as Table 5.

P_{WM} = Manufacturing Workers.

basis of currently available data. Why has the manufacturing workforce, especially in rural areas, become more masculine? Could it be that in the development process activities in cottage and small scale industry, which used to be dominated by women in rural areas, have started to increasingly favour men? Is this phenomenon due to a commercialisation process? Are many women who used to be involved in this sector as unpaid family workers being replaced by men, who work for monetary remunerations?⁵ Or, may it in fact be that increasing difficulties in finding income earning opportunities have forced more men to join this sector where productivity is at times even lower than in the agricultural sector (see Stoler, 1977; 1977; Kano, 1981; Lluich and Mazumdar, 1983)?

Some conjectures may be offered. A recently conducted study of small scale industries in Jakarta (LPEM, 1983) shows that the favourable economic climate of the 1970s produced an upsurge of new enterprises, mostly of artisans trying to set up as independent units. Many of these enterprises were induced by public policies and programmes which favoured their establishment, for manufacturing was expected to play an increasingly important role in absorbing additional workers entering the labour market.⁶ While at present no overall statistics can be offered, it appears from the few studied cases that the workforce in small scale and cottage industry is dominated by males. This is because activity in the various subsectors greatly influences the sex composition of the workers. Metal, repair shops and construction are dominated by males. Enterprises active in food processing especially bread makers, bean curd and bean cake producers, textiles (especially tailors) and leather products tend to hire more males than females. The production of fried snacks or dressmaking, on the other hand, employ more females.

THE ROLE OF LARGE AND MEDIUM SCALE ENTERPRISES IN MANUFACTURING

There is an inverse relation between level of labour absorption and contributed value added. While small scale and cottage industries absorb most of

⁵This suggestion cannot be verified by available data due to changes in classification by status of the workforce, which result in incomparable data.

⁶Besides providing consulting services and training, another important component of public support has been the provision of a large variety of low interest credit schemes such as the KIK (Small Scale Investment Credits), and KMKP (Permanent Working Capital Credits), and various other small scale credit schemes. the realised cumulative value for manufacturing rose from Rp 44.9 to Rp 194,6 billion between March 1971 and March 1980, but as a proportion of total realised credits extended, it declined from 59 to 32 per cent over the same period (*Nota Keuangan* 1983/1984, Table V.10: 132-135).

the workers in the manufacturing sector, they contribute very little to total value added. The reverse is the case with large and medium enterprises. Thus, while large and medium firms employ only 13 per cent of the manufacturing workforce, they contribute 80 per cent of the total value added in this sector. The share attributed to small manufacturing firms is roughly seven per cent in terms of both variables, while cottage units absorb 80 per cent of the workforce and contribute a mere 13 per cent to overall value added in manufacturing (see McCawley, 1981, Table 3.4: 68).

Not only is most value added in manufacturing contributed by large and medium scale enterprises but their role has become increasingly more important. Thus, in 1971, 83 per cent of the manufacturing value added was contributed by medium and large firms, and this proportion rose steadily to 92 per cent in 1980 (Table 7). In absolute terms, the overall value added of large and medium firms rose about fourfold during the period.

Table 7

GROWTH AND COMPOSITION OF VALUE ADDED BY SIZE OF FIRM, INDONESIA
1971-1980 (at 1973 Constant Prices, in billion Rp)

Year	Value added			L + M
	L + M	S + C	Total	Total (%)
1971	407.1	82.9	490.0	83.1
1972	468.6	95.4	564.0	83.1
1973	540.0	110.0	650.0	83.1
1974	641.9	112.6	754.6	85.1
1975	732.6	115.3	847.9	86.4
1976	812.1	117.9	930.0	87.3
1977	937.0	120.7	1,057.7	88.6
1978	1,112.0	123.5	1,235.6	90.0
1979	1,268.9	126.4	1,395.3	90.9
1980	1,575.1	129.5	1,704.6	92.3

Source: Mansur, 1983, Table 4.2: 84.

The relatively rapid growth in value added by large and medium manufacturing enterprises during the decade of the 1970s was, however, not followed by a corresponding expansion in employment. The annually collected industrial statistics indicate that employment in large and medium manufacturing establishments rose from 760 thousand in 1975 to 969 thousand in 1980, meaning that only 200 thousand additional jobs were created during the last

five year of this decade (Table 8). If these data are more or less comparable to the census, then only about a fifth of all workers in manufacturing in 1980 were in the formal sector (969 out of 4,580 thousand, Table 2).

Table 8

WORKERS IN LARGE AND MEDIUM MANUFACTURING ENTERPRISES BY
SUB-SECTOR INDONESIA, 1975—1980

Sub-sector	1975	1976	1977	1978	1979	1980
31 Food processing	284,955 (37.5)	316,090 (39.1)	306,718 (38.7)	291,981 (35.6)	304,087 (35.2)	321,393 (33.2)
32 Textiles, leather products	244,850 (32.2)	228,056 (28.2)	212,565 (26.9)	223,768 (27.3)	225,134 (26.1)	258,446 (26.7)
33 Wood products	38,538 (5.1)	41,613 (5.2)	45,232 (5.7)	47,823 (5.8)	49,506 (5.7)	65,003 (6.7)
34 Paper and printing	26,041 (3.4)	27,493 (3.4)	26,499 (3.3)	26,055 (3.2)	28,281 (3.3)	31,880 (3.3)
35 Chemical, rubber products	63,154 (8.3)	68,629 (8.5)	69,493 (8.8)	92,349 (11.2)	101,332 (11.7)	109,736 (11.3)
36 Non-metallic mineral products	33,470 (4.4)	34,346 (4.3)	35,453 (4.5)	38,195 (4.6)	42,128 (4.9)	46,675 (4.8)
37 Basic metals	2,883 (0.4)	4,694 (0.6)	5,009 (0.6)	3,978 (0.5)	4,559 (0.5)	8,822 (0.9)
38 Metal products	61,548 (8.1)	82,615 (10.2)	86,344 (10.9)	92,126 (11.2)	102,547 (11.9)	121,479 (12.5)
39 Other	4,592 (0.6)	4,101 (0.5)	4,346 (0.5)	4,847 (0.6)	5,943 (0.7)	5,753 (0.6)
Total manufacturing	760,031	807,637	791,659	821,122	863,517	969,187

Sources: Biro Pusat Statistik, *Industrial Statistics* for several years.

If one accepts that the growth in employment in manufacturing during the 1970s occurred mainly in small and cottage industries while the growth in value added accrued mainly to large and medium size firms (Table 7), then it is fair to conclude that the gap is widening between the two subsectors.

Not only do the manufacturing data imply a more pronounced dualistic nature of the sector, but they also show that manufacturing employment is dominated by non-durable consumer goods. In 1975, 70 per cent of all workers in large and medium firms were in food processing and textile and leather products; by 1980 this proportion had declined to 60 per cent (Table 8). The decline in the concentration into the two subsectors of food processing and

textile and leather products, has primarily been due to a declining role played by textiles in the overall manufacturing sector seen in Table 9. This situation was influenced by earlier rapid expansion in textile firms since the implementation of the Foreign and Domestic Investment Acts of 1967 and 1968. However, since 1975, industrial growth has slowed in textiles and some other parts of the modern sector. Output growth rates in the textile industry fell from around 20 to 10 per cent per annum between the periods 1967-1975 and 1975-1978 (McCawley, 1968; 64-67), as numerous establishments closed down. In 1975 there were 2,956 textile companies while in 1980 only 2,188 remained (Table 9). Considering that during the latter half of the 1970s the number of workers in large and medium manufacturing enterprises increased while the number of establishments declined, by implication it is the smaller and weaker firms which had to give way to larger and bigger establishments.

Table 9

NUMBER OF LARGE AND MEDIUM MANUFACTURING ESTABLISHMENTS BY
SUB-SECTOR, INDONESIA, 1975-1980

Sub-sector	1975	1976	1977	1978	1979	1980
31 Food processing	2,562 (30.2)	2,711 (32.6)	2,532 (31.8)	2,498 (31.4)	2,497 (31.6)	2,489 (30.9)
32 Textiles, leather products	2,956 (34.8)	2,507 (30.2)	2,299 (28.9)	2,218 (27.9)	2,146 (27.1)	2,188 (27.2)
33 Wood products	610 (7.2)	684 (8.2)	655 (8.2)	637 (8.0)	616 (7.8)	620 (7.7)
34 Paper and printing	372 (4.4)	376 (4.5)	353 (4.4)	345 (4.3)	332 (4.2)	363 (4.5)
35 Chemical, rubber products	683 (8.0)	681 (8.2)	700 (8.8)	799 (10.0)	812 (10.3)	837 (10.4)
36 Nonmetallic, mineral products	653 (7.7)	635 (7.6)	638 (8.0)	624 (7.8)	637 (8.1)	640 (7.9)
37 Basic metals	13 (0.2)	18 (0.2)	19 (0.2)	17 (0.2)	21 (0.3)	23 (0.3)
38 Metal products	580 (6.8)	631 (7.6)	681 (8.6)	735 (9.2)	769 (9.7)	811 (10.1)
39 Other	58 (0.7)	67 (0.8)	73 (0.9)	82 (1.0)	82 (1.0)	83 (1.0)
Total manufacturing	8,487	8,310	7,950	7,955	7,912	8,054

Source: Biro Pusat Statistik, *Industrial Statistics* for several years.

CONCLUDING REMARKS

Manufacturing has played an increasingly important role in absorbing the Indonesian workforce. The number of workers in this sector rose from 2.9 to 4.7 million between 1971 and 1980. Out of a total workforce which rose from 39.2 to 51.5 million during the same period, manufacturing absorbed 7.5 per cent in 1971 and 9.1 per cent in 1980.

The increase in manufacturing employment occurred during a period of rapid economic growth. An important stimulus to which was export earnings from oil. The importance of oil in Indonesia's economic development process during the last decade can not be understated. It was oil that boosted the growth of the economy during the 1970s and it is again oil which causes the present downturn in the national economy (see McCawley, 1983). The effects of the world recession, which started in 1980 as a consequence of the steep rise in oil price in 1979, reached the Indonesian shores in 1981. Although no official output data are available since 1981, all indications point to a slowing down of the economy since that time.⁷ Following the lead of the industrialised nations, recovery in the Indonesian economy is expected in the near future. The growth rate in overall GDP has been officially projected at around 5 per cent per year for the next five year planning period starting in fiscal 1984/1985 (*Sinar Harapan*, No. 4, 1983). If this growth rate materialises, what can be anticipated about growth in the manufacturing workforce?

Currently available official population projections estimate the Indonesian population in 1985 to be 165 million and in 1990 183 million. Of these, 120 million and 136 million, respectively, will be ten years and over (BPS, 1983). Thus, the working age population is projected to grow 2.5 per cent per annum during the decade of the 1980s, an average of 1.5 million workers annually. No change in work force participation is anticipated, that even a slow down in the growth of the economy will have little effect on the growth of the workforce.

Structural changes will continue as a consequence of increasing population pressures, especially in rural Java. The role of agriculture will continue to decline while manufacturing, and more so trade and services, will have to play an increasingly important role in absorbing new entrants into the workforce. On the basis of their study, Lluch and Mazumdar asked "... how long could the 3.6 per cent annual rate of growth in agricultural output observed over the last decade on Java be sustained; and, will the labour saving practice observed in parts of Java, along with the increase in commercialisation of agriculture,

⁷Arndt (1983), however, claims a 2.5 per cent rise in GDP in 1982 (at constant 1981 prices).

become more widespread, thus reducing the demand for labour?" (1983: XVIX). If agricultural employment is to expand it must be mostly, outside Java. The government programme towards this end is through transmigration. While claiming great successes in achievements of quotas⁸ (which are sizable by international standards), only about a fourth of the incremental workforce on Java are resettled through this mechanism.

The manufacturing workforce will continue to grow during the present decade, but following past trends, the manufacturing sector will become increasingly bifurcated. Even if the modern sector expands, it is in small and cottage industries with very low returns to labour that most of the needy workers will have to find jobs. Current official projections set growth in value added in the manufacturing sector at an average of 9.5 per cent during the next planning period (*Sinar Harapan*, 1983). If in the past, when conditions were far more favourable to developing the modern manufacturing sector, only a limited number of additional employment opportunities were created, then even fewer new job creations can be expected in the future from this sector. Thus, small scale and cottage industry must employ an increasing number of workers. Whether there will be a demand for their products remains the key issue.

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⁸The current achievements are in the order of 100 thousand families or about 500 thousand individuals per year who are being resettled under the direct or indirect auspices of the transmigration agency.

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Youth and Society: Viewpoint for the Future -- An Indonesian Experience

Prijono TJIPTOHERIJANTO

INTRODUCTION

In the context of Indonesia's development efforts, problems which the younger generation has to face and to solve immediately, are among other things:

1. to increase the participation of the younger generation in the labour force with the aim of increasing national productivity and thereby foster the economic development of the country.
2. to find ways how to relate the available labour opportunities at present to the educational systems to enable the younger generation to cope with development efforts.
3. to maintain and inculcate idealism, patriotism, and nationalism among the younger generation through better interactions and communications among youth organisations.
4. to continuously develop creativity and self-reliance in facing social and economic problems of the country.

These are among others some of the problems that have to be faced by the younger generation of Indonesia in the course of the development process marching toward the take-off stage which is scheduled to start in 10 years time as from now. All these problems have in fact been taken into account and been

Paper presented to the General Symposium, Sixth AASSREC Conference, Bali, Indonesia, September 2-7, 1985. With a vote of thanks to colleagues Riwanto Tirtosudarmo, Fachry Ali and Azyumardi Azra for their contribution to this paper, but all responsibilities are in the hand of the writer. Prijono Tjiptoherijanto, Ph.D., is the Chairman of the Institute for Demography, Faculty of Economics, University of Indonesia.

well formulated in the Guide Book of the Fourth Five Year Development Plan, Chapter 20.

Before going further to review the problems of the youth, it is important that we should first agree to what is meant by the term of the "youth." According to Unesco, youth is understood to include that part of the population within the 15-24 years age bracket.¹ Adopting this definition, the Indonesian youth has doubled during the last decade. The Census of 1961 showed that the percentage of the population within the 15-24 years age bracket constituted only 16.1 per cent of the total population. Of these youth, the female youth comprised 15.4 per cent of the female population in 1961, whereas the male youth comprised 16.8 per cent of the male population in the same year. In 1971, the percentage of the younger generation has increased to 16.4 per cent of the total population. The female youth have increased to 15.8 per cent of the total female population, while the male youth rose to 17.0 per cent of the total male population. Findings of the Census of 1980 showed that the number of the younger generation jumped to 19.3 per cent of the total population, whereas the female youth have increased to 19.3 per cent of the total female population and the male youth have increased to 20.0 per cent of the total male population. This clearly shows that the group of young people has greatly increased during the past two decades.

The increase of the younger generation has created urgent needs which have to be met immediately. It will certainly have an impact on the field of education which itself is getting more and more complex. It is a problem for any developing country, where the younger generation wants to obtain formal education, while educational facilities and personnel are only available to a limited extent, particularly with regard to the provision of teachers, school buildings, tools for learning, curriculum and administrative personnel. Attention should also be paid to these problems if the quality of education is to be maintained.

Looking at the growth rate of the younger generation today, one may wonder whether this younger generation will be able to contribute to their own future. Will there be adequate employment opportunities for them commensurate with their increasing numbers? In this regard one has to reassess the role of the youth. If development is primarily concerned, with (a) development efforts to achieve a stable economy, and (b) fostering social and institutional changes conducive to economic development, then the youth could be a potential factor in realising and achieving the goals of such an economic development.

¹ *Youth Related Indicators*, Social Sciences in Asia and the Pacific, Unesco, Bangkok, 1983.

In this regard the youth is expected to participate actively in the process of social change. This in turn means that the youth will of course require certain skills, abilities, and intelligence necessary to carrying out the task, while at the same time retaining their cherished traditional values. Facing these problems, the youth are torn by internal conflicts among themselves as to whether they should take an indifferent attitude toward the course of the present development process, or whether they should maintain a firm stand, even if they have to go against the current thrust of national development. This question arises quite naturally if one relates the growth rate of the younger generation to the existing employment opportunities. This problem will undoubtedly also affect the educational field.

DEMOGRAPHIC ASPECTS²

As mentioned earlier the demographic problem, especially concerning the younger generation, seems to remain a topic which invites serious debate in the midst of these development efforts, especially if one relates the number of young people to the available employment opportunities. The problem of education will also be dealt with in this essay.

The demographic problem which will be discussed in this essay will be concerned with the growth of the younger population itself, the problem of labour participation, and the level of education acquired by the younger generation.

The Younger Population

As described at the beginning of this essay, the rapid growth of the younger population is very significant during these past two decades. It is interesting to observe their growth, both in rural as well as urban areas. From the available data one can see that during the period 1971 to 1980 the growth of the younger population in urban areas (7 per cent) was twice as high compared to the growth in rural areas, which on the average was only 3.5 per cent per annum. This rapid increase was both due to the natural growth rate as well as due to the migration of young people from rural to urban areas, especially on the island of Java.

Surveys on this migration have been conducted by Hugo (1978) in West Java, by Mantra (1981) in Yogyakarta and by Tirtosudarmo (1985) in East

²Riwanto Tirtosudarmo, "Demographic Structure of the Youth and Unemployment Problem in Indonesia," paper presented to the AASSREC Pre-Seminar, Jakarta, May 17-18, 1985.

Java. These studies showed that the two strongest motivations of young people to move into urban areas were to pursue formal education and to look for a job. These surveys also showed that the 15-24 age group was the greatest among the other groups. A survey conducted recently by the daily *Kompas* among 476 young people in cities, districts, and rural areas of nine provinces in Indonesia, has revealed that 36.9 per cent of the respondents stated that their major problem was looking for a job, while 18.3 per cent of the respondents stated that their primary concern was to earn money to pay for their costs of study.³ Though this survey had a different purpose than the three previous ones, they nonetheless showed quite clearly that the strongest urge among the younger population to move into cities was to make money in order to get a better and proper education and to look for a job. It is therefore quite relevant to look into those two problems seen from the viewpoint of the demographic field.

Participation of the Younger Workforce

A case study conducted in East Java (Tirtosudarmo, 1985) revealed that there were at least three components that have to be considered regarding the increasing flow of the younger population migrating from rural to urban areas. First, there is a shift of job opportunities taking place in rural areas due to agricultural mechanisation as well as to social institutional changes and the great disparities in land ownership and wealth in rural areas.⁴ Second, in several districts in East Java, the population has increased very rapidly; and third, various changes in urban areas, including development, education, and services have offered various opportunities for the younger population to try their luck in the cities.

The migration of young people from rural to urban areas has always created classic problems in developing countries. The available job opportunities seem to be inadequate to meet the flow of young people who are searching for jobs. The predictable consequence thereof has been open as well as disguised unemployment.

For the purpose of analysis, data on the division of labour in Indonesian society will be very useful.⁵ Table 2 shows that the number of Indonesians who

³"Wajah Bingung Pemuda Kita," *Kompas*, May 19, 1985.

⁴A survey conducted by Hotman M. Siahaan in three villages in East Java, present detailed data on these problems, *Prisma*, November/December 1983.

⁵People included in the labour force in Indonesia are those who are at least 10 years of age, and who had a job or were looking for a job one week before the Census. In the Census of 1980 the criterion for determining who belonged to the labour force was modified to include those who were working at least one hour every day for a wage during the week preceding the Census.

are part of the labour force and those who are not is almost equal (50.2 per cent and 49.8 per cent). But from the residence point of view the percentage of people working in urban areas is lower (41.5 per cent) than the percentage of people who are not part of the labour force (47.1 per cent). On the contrary, the percentage of the labour force in rural areas (52.9 per cent) is higher than that of those who are not part of the labour force (47.1 per cent). The high number of people in urban areas who are not part of the labour force is caused among other things by the fact that many among them are schoolgoers. On the contrary, the relatively low number of people in rural areas joining the labour force is caused by the fact that labour-intensive activities are still capable of absorbing labour, such as agricultural and cottage industry enterprises. However, the capacity of this sector to absorb labour is declining.

Under these circumstance there is no way of getting job security other than by becoming civil servants. This fact has clearly been shown by a survey conducted by the daily *Kompas*, i.e.: the majority of respondents (52.7 per cent) intended to become civil servants, while only 30.5 per cent wanted to try their own luck as small entrepreneurs, and 12.8 per cent wished to get a job in private enterprises.⁶ This tendency is commonly caused by their inability to find other alternative jobs, or it may also be caused by their desire to continue the status of civil servants the parents of most respondents possessed. However, the choice to become a civil servant seems to have been more influenced by the consideration of obtaining job security, particularly at a time when economic conditions are unfavourable as is the case at present, rather than belonging to the labour force. Of this number, around 4,218,162 are living in rural areas and the remaining 313,717 in urban areas. This situation has greatly influenced the choice of the desired jobs, as described earlier. The tendency for choosing to become civil servants, to get job security, has among other things also been influenced by this situation.

EDUCATION AND WORK⁷

From the above observation one can see clearly the relationship between the educational level attained and the kinds of jobs acquired. Besides, there seem to be a strong urge for attaining higher educational levels in order to get appropriate jobs. This is quite natural, since education is considered a way to increase human capital. It can even be said that a country which is not able to raise the capabilities and knowledge of its citizens and make effective use of it

⁶*Kompas*, May 19, 1985.

⁷Azyumardi Azra, "Education and Work: Preparation for Adulthood," paper presented to the AASSREC Pre-Seminar, Jakarta, May 17-18, 1985.

in the national economy, such a country will not be able to develop other areas.⁸

The Indonesian government is fully aware of the importance of education particularly since the advent of the New Order government. Various attempts have been made to realise the desire of the government to achieve what has been stated in Chapter XIII, article 31, item 1 of the 1945 Constitution namely that: "Every citizen has the right to get proper education." To achieve this, and in accordance with the following item, i.e. item 2: "The Government will maintain one single national educational system, which will be regulated by law."

It is clear that the Indonesian government gives equal opportunities to everyone in pursuing education, including elementary, secondly as well as tertiary education. The fulfillment of the right to educational opportunities will be met by the government by maintaining a single national educational system.

The Objectives and System of Education

The determination of the Indonesian government to provide equal opportunities for education to every citizen is reflected in the expansion of elementary education, the realisation of compulsory education which at the same time provides skills commensurate with the needs of the environment. This is further implemented in Indonesia through the existing educational system, which basically consists of three stages of education which include primary, secondary and tertiary levels. The primary level includes Pre-School or Kindergarten and Elementary School education; Secondary Level education includes Junior and Senior High Schools, while Tertiary Level education includes Universities, Academies, and often Institutes of Higher Learning.

The two categories of education existing in Indonesia include Non-Religious and Religious Schools. These two categories of Schools are being supervised by two different departments, namely the Department of Education and Culture for the Non-Religious Schools, and the Department of Religious Affairs for the Religious Schools. In addition, other departments are maintaining their own training facilities for meeting their own internal needs. These training and educational facilities are supervised by each of the departments with the knowledge of the Department of Education and Culture.

⁸Michael P. Todaro, *Economic Development in the Third World* (New York: Longmen, 1978), p. 235.

	Non-Religious Schools (Dept. of Education & Culture)	Religious Schools (Dept. of Religious Affairs)
Tertiary education	<u>Graduate</u> <u>Undergraduate</u>	Jamiah
Secondary education	<u>Senior</u> <u>Junior</u>	<u>Aliyah</u> Tsanawiyah
Primary education	<u>Elementary School</u> <u>Kindergarten</u>	Ibtidaiyah

Besides those two formal education systems, there are also Islamic traditional educational institutes called the "pesantren." These indigenous institutions have flourished for centuries and are attended by pupils or "santris" from various regions, even from foreign countries. Now most of the "pesantren" traditional institutions have been undergoing a transformation through the adoption of the "madrasah" system with classroom teaching, though it still has the characteristics of a non-formal education system which emphasises personal teaching.

In the meantime education in Indonesia has developed with the launching of the national development which has been implemented in a planned and orderly way since the advent of the New Order government. For instance, during the first "Pelita" (The Five Year Development Plan) (1969/1970-1973/1974), in developing a national education system, greater attention was given to the rehabilitation of schools and innovations in the school curricula. In addition, the mechanism of planning within the context of national development was set up. Thus, this period can be described as the period in which the basis for laying the foundations of a national educational system in all its aspects were being laid.

During the second "Pelita" (1974/1975 - 1978/1979) the same emphasis on education continued to be dominant in which procedures of the mechanism for planning a national education programme began to yield some results. However, since the place and the links of education with the national development remain unclear, the above problem could not be solved satisfactorily. During the third "Pelita" (1979/1980 - 1983/1984) the role of education in the national development was further emphasised. During this period education received a greater priority than in previous Pelitas. The government was building more schools and provided more teachers. On April 1, 1984, at the start of the fourth Pelita, education received an even greater priority in the national development effort.

Despite all the efforts of the government in developing the field of education, there were still several problems to be faced. For instance, the number of educational facilities which are still relatively inadequate with regard to the increasing number of school-age children, has resulted in an increasing number of school-age children who cannot be enrolled in formal educational institutions. This has of course deprived the school-age children of the right to obtain proper education. In addition, in view of the increasing number of children who want to be enrolled in schools, the costs of education for every child have also increased, since parents are willing to spend large sums of money for the education of their children. On the other hand, the high costs of education has forced a large number of children -- particularly from the lower-income groups -- to leave school too early and become drop-outs. Consequently, the number of the unemployed increases when existing job opportunities are not adequate to absorb these drop-outs.

Rate of Drop-Outs and Unemployment

Data on educational facilities in 1980 showed that the higher a person wants to climb on the educational scale, the less chance he will have of getting a place. In 1985, out of the 512,050 high school graduates applying for a place in universities, only 14 per cent were accepted for enrollment at the 43 State Universities. The remainder (86 per cent) had to find places at private universities, or look for other alternatives, e.g. to find a job, if they cannot afford to go to private universities. This difficult situation became even more difficult as students who were accepted for enrollment in the universities were dropping out due to various reasons. According to Beeby, several studies have shown that drop-outs have become a socio-economic rather than an educational problem.⁹ Results of interviews have shown that a large majority of parents stated that the primary reason for their children to drop out of schools were caused by their inability to continue financing the costs of education for their children. A second reason is the lack of awareness among parents about the importance of education for their children.

The number of drop-outs in Indonesia is quite large. Data showed that in 1969 there were 544,839 drop-outs at the primary school level. This is around 49 per cent of the total number of children in primary schools. This situation has caused a vertical imbalance in the field of education in Indonesia. The ratio of pupils and students attending Primary Schools, Junior and Senior High Schools, and Tertiary Education Institutions is as follows: 50.3; 5.3 :

⁹Beeby, CF, *Education in Indonesia: Evaluation and Planning Guidance* (Jakarta: LP3ES; 1981).

2. : 1. When the students attending Junior and Senior High Schools are combined, then the ratio is as follows: 50.3 : 7.5 : 1.

The vertical imbalance is still further worsened by the horizontal imbalance taking place in particular at the Junior and Senior High Schools. The majority of parents prefer to send their children to Secondary Schools providing general education rather than to vocational schools. Meanwhile, those who have graduated from vocational schools do not always get a job, and have to enroll for study in the universities. This has of course worsened the vertical imbalance.

The large number of drop-outs has forced the economy to provide job opportunities for those drop-outs. However, if employment opportunities are inadequate, open unemployment is inevitable. This situation is aggravated as graduates from vocational schools are actually not really equipped for work in view of the inadequate training and facilities due to lack of funds. As a result these young unemployed people are therefore expected to create unemployment opportunities for themselves.

TRADITION AND SOCIAL CHANGE¹⁰

Efforts by the young people to determine their own lives are greatly influenced by their aspirations and background which in turn are influenced by the political system and by the ongoing process of national development.

In analysing the political system and government policies in Indonesia, one has to take into account the sociological background underlying those systems. With this sociological background, the ways of the Indonesian bureaucracy can be analysed, after which the role of the youth within this system could be studied.

Bureaucracy and Its Sociological Setting

Indonesia's socio-economic and political system have been very much influenced by its status as a post-colonial society. Consequently, the process of social development has been characteristically Indonesian, at least characteristic of a developing country. Eventually, through the New Order era, socio-economic dualism as well as cultural and political dualism were very much in evidence. This dualism has contributed greatly to the emergence of conflicts and radicalism.

¹⁰Fachry Ali, "Development, Politics and Alienation in Indonesia," paper presented to the AASSREC Pre-Seminar, Jakarta, May 17-18, 1985.

During the Old Order regime, political instability and deteriorating economic conditions have weakened the role of the bureaucracy in spite of the increased role of the politicians. With the ineffective bureaucracy, it was impossible to carry out development programmes. Consequently soon after the rise of the New Order, first priority was given to strengthen the bureaucracy. To this end, many elements of the Old Order bureaucracy were dismissed, technocrats were recruited and a new political system was set up. Slowly but steadily, the bureaucracy grew stronger. Under military patronage -- implementing the dual function of the Armed Forces -- and the exclusion of bureaucrats from political parties conformed to Government Regulation No. 12 (*Permen*), the bureaucracy has become an effective force in the implementation of development and programmes of modernisation of the New Order Government. With this powerful bureaucracy supported by non-political bureaucrats, foreign countries have been encouraged to offer grants and loans or invest their capital in Indonesia. With funds from abroad, through development and modernisation implemented by this bureaucracy, political legitimization of the military leadership and the bureaucracy was obtained. This political legitimacy has entitled the governmental bureaucracy to control the whole process of the socio-economic development.

In the context of a post colonial society where the socio-economic and political formation were strongly influenced by the colonial heritage, the bureaucracy which grew within it could not as yet be freed from these influences. On the other hand, "resistance of the Javanese culture" has given a certain flavour to the bureaucracy. According to the perception of Javanese culture, the ruler has absolute power in the sense of having received power in a mystical way. As a result, a patron-client relationship emerged. According to this perception, the subordinate is totally devoted to serving his superior.

The Role of the Younger Population in Social Change

Development and modernisation during the New Order have unfortunately alienated people from the process itself. People have not been given adequate opportunities to participate in the decision-making process. Such alienation could generate radical movements and cultural revivalism as have happened once in Indonesia. Furthermore, the implementation of development strategies based on the experience of Western countries, has resulted in a socio-political transformation in Indonesia without any previous precedence. This transformation has evoked strong reactions among people in regard to values, culture and religion. For example, in 1974 the Indonesian youth have demonstrated against the alleged domination of foreign capital. In 1978 student movements questioned the prevailing development strategy which was being implemented

by the government. In 1976 a cultural movement led by Sawito was clearly inspired by Javanese culture. Ironically the government itself had encouraged this kind of movement to flourish a few years ago. Another riot took place in Tanjung Priok in 1984, which was clearly influenced by religious factors. In these struggles, some people were ready to sacrifice even their lives.

All these movements have indicated that the youth more or less desired changes in the political sphere, but have been too radical. Their actions have often been disorganised and were not well-planned, so that their movements have only been sporadic and their aspirations have often been ignored by the authorities. That was the reason why many of these youth movements failed to achieve its goals or were even easily suppressed by the authorities.

CONCLUSION: FACING THE FUTURE

To overcome the challenges of the younger generation in the future -- arising from economic development and socio-political change concomitant with the development process -- the role of the younger generation as innovators in the development process, should be established.

With this role as innovators, the younger generation may contribute towards accelerating the desired modernisation process, and increase their participation in the modernisation process itself. This innovative role has not only economic implications in generating new job opportunities, but prevents social unrest and opens unemployment problems as well.

By its very nature this role as innovators and entrepreneurs will become stronger if the traditional elements inimical to modernisation are weakening. On the other hand, elements which are supportive to the role for modernisation have to be fostered without losing one's identity. In other words, the modernisation process should not be based completely on the Western development paradigm in order that the national goals be achieved without the loss of national identity.

One of the means to strengthen the role of innovation and modernisation is education. If the educational system is functioning well, then one can expect that the succeeding generation will emerge with those ideal attitudes, such as for example, that one does not look down on blue collar jobs as being lower than white collar jobs. Another major problem still to be faced is related to Indonesia's large population with its limited absorptive capacity by educational institutions. To overcome this problem, the government should actually pay more attention to the role of indigenous educational institutions. On the

other hand, these traditional or indigenous educational institutions should also adjust themselves to the current demands, namely to be the place to obtain proper socialisation for the roles of innovation and modernisation. If a situation conducive to the spread of innovative and modernising values could be established, then this will alleviate the burden of the government in carrying out its development programme.

The dissemination of values conducive to innovation and modernisation are likely to prevent radicalism and cultural revivalism, it will open up opportunities for people in political as well as in socio-cultural life. Hence, there will be less people being alienated from the decision making process within the bureaucracy. A hopeful development in this direction is reflected by the emergence of several non-governmental organisations (NGOs). In this way the alienation of society from the process of decision-making in general and the bureaucracy in particular will be lessened, and the private sector will grow into a strong partnership of the government in achieving the goals of national development. With the roles of innovation and modernisation imbued with a persistent fighting spirit the youth of today will be more resilient in coping with both internal as well as external difficulties. This arduous task will have to be shouldered by all the citizens who should be prepared to accept this assignment.

Book Reviews

Local Revolution in the Early Period of Independence

Regional Dynamics of the Indonesian Revolution, Unity from Diversity by Audrey R. Kahin (Ed.). Honolulu: University of Hawaii Press, 1985, 306 pp. This review article by R. William Liddle is translated from *Tempo*, February 1, 1986.

To a foreigner who wants to know the history of the Indonesian society of the 29th century, the period of the Revolution still possesses a strong appeal. The editor of this book, Audrey Kahin, from Cornell's Project of Modern Indonesia, USA, succeeded in gathering eight people who are able to write the historical characteristics of the Revolution in various parts of Indonesia -- from Aceh to as far as Ambon. All of them are young historians -- from the US, Australia, and Great Britain -- with special interest for the period of the Revolution.

The case study compiled in this book has been divided into three parts by Kahin, on the basis of roles played by the forces outside the regions, namely the Dutch and the Indonesian Government during the first months after the Proclamation of Independence. The first part, which has been given the title of "The Regions Independent from Outside Powers, comprises three cases: Tiga Daerah (the three districts regions of Brebes, Pemalang and Tegal), Banten and Aceh. The second part, "The Battlefield for Contending Powers," contains two

chapters on East Sumatra and West Sumatra. And the third part, "the Regions Occupied by the Dutch," describes the Revolution in Jakarta, South Sulawesi and Ambon. According to the editor, the factor of outside powers has greatly influenced the events in each of the regions, particularly at the beginning of the Revolution.

Seen through local spectacles, these eight cases constitute (quoting Kahin's sentence) "a series of regional revolutions which were autonomous in nature but had a common goal -- Independent Indonesia" (p. 282). The leaders of the Revolution and their followers in the regions adhered to various ideologies and aspired after a variety of forms of the Indonesian Nation and State, which became their dream. These variations were due to differences in the social structure, economy, the historic relationship with the coloniser and the pattern of culture, particularly the religion.

The only local revolution that succeeded in the realisation of its ideals was the modernist Islamic movement in Aceh, led by PUSA (Persatuan Ulama Seluruh Aceh = All Aceh Association of Ulemas). When it seized power as a consequence of a revolutionary action, PUSA "had a clear perception on the New Order it was aspiring after and succeeded in establishing a state which was pro the Republic and at the same time remained autonomous and consistently adheres to Islamic teachings" (pp. 268-269).

What made Aceh different from other regions was the integrity it achieved among its revolutionary forces under the leadership of PUSA. In Tiga Daerah and Banten a coalition

comprising ulemas, nationalist radicals, and bandits (in Tiga Daerah they were called lenggaong, in Banten Jawara) succeeded in overthrowing the civil service at the beginning of the revolution.

This coalition however did not last long. The radical leaders were also overthrown after which important functions were occupied by the ulemas. However, they were also continuously threatened by a variety of opponents, and were never able to keep the local government in function.

What was striking in East Sumatra and West Sumatra was the rivalry that prevailed between the Dutch and the Republic and amongst pro-independence groups from the outset until the end of the Revolution. In East Sumatra, conflicts and clashes based on ethnic differences, religion and social economic status were exploited by the ex-coloniser to defeat the revolutionary forces and to establish a lackey government of East Sumatra.

In West Sumatra, the Republic could be maintained due to: the ethnic and religious situation which was relatively homogenous; the confidence of the society in the officialdom of the Republic (probably due to the old Dutch and the Japanese policy, who recruited civil servants from many layers of the society); the intimate relationship of the community with Minangkabau prominents in the central government, such as, Mohammad Hatta and Sutan Sjahrir; and the support by the local Indonesian Army and the strong people's armed units who were able to co-operate with each other.

In Jakarta, South Sulawesi, and Ambon, regional pro-independence groups were not able to outweigh the Dutch forces. Jakarta was illustrated as a region that did not have a genuine indigenous traditional elite or new leaders with a local vision regarding the form of the independent state they were fighting for. Republican Officials in the PNKD (Pemerintah Nasional Kota Jakarta = National Government in Jakarta) came from other regions, and had no political basis in Jakarta.

South Sulawesi, a region where the sultans were siding with the Republic, was contrasted to that of East Sumatra, where the nobility were completely wiped out by young radicals. In South Sulawesi revolutionary leaders, moderates and radicals alike, were forced to unite because they had to confront strong and vicious colonial troops.

The case of Ambon has been given the title of: "Not a Revolution, but a Contra-Revolution." This refers to the movement launched by a group of Ambonese, who were Christians and who adopted the Dutch culture, and who at the end of the Revolution rejected the outcome of the Round Table Conference, and eventually proclaimed the independence of the Republic of South Maluku (RMS). They were opposed by the local Moslems and pro-Republic Christians, who, at that time, were estimated to constitute the majority of the population in Ambon. By Kahin and Richard Chauvel, the writer of this chapter, RMS is considered as representing the attitude of colonial employees throughout Indonesia. The only difference is that in Ambon they were sufficiently strong to impose their will, albeit temporarily.

In social life, the one which is usually dark may become bright by virtue of a glaring beam of a tremendous social upheaval such as a revolution. In the light of the eight cases of local revolutions summarised above by the editor, it is very obvious that the Indonesian society comprises numerous groups with their own respective aspirations, ideals and demands. Furthermore, the happenings in the regions were generally autonomous in nature, not much had been derived from outside. As a political scientist the reviewer is interested in the government's reaction in this regard. If the laser beam of the revolution is to be focussed on the government's attitude towards mentioned local groups, what would one find?

The answer of Kahin et.al. is quite clear. The national government leaders took a conservative stance and acted likewise. In almost every region they endeavoured to co-operate with ex-colonial employees, and often with the kings and sultans. This policy succeeded in

West Sumatra because the corps of civil servants was widely supported by the community.

However, the central government could not exert their authority over Aceh after the "uleebalangs" (district chiefs) had been killed, and in Tiga Daerah, Banten, and East Sumatra the colonial elite group was wiped out by the radicals. In Jakarta, South Sulawesi, and Ambon, the government of the Republic of Indonesia has "de facto" recognised Dutch authority. Taking this step was even more conservative in nature, in the sense that support could not be rendered to any group.

What was the cause of this conservative reaction? Kahin stresses on the weakness of the central government compared with the local religious and radical groups. Equally important was the need for overseas support, particularly from anti-communist countries of the West and the need for establishing the state bureaucracy to such an extent that it could cover the whole of the territory of the republic.

An analysis on the past political situation will undoubtedly elicit further questions. Does this book provide us with the necessary materials for a further review on the developments during the periods of the Parliamentary Democracy, Guided Democracy and the New Order? Evidently the government of post-Revolution very often had to struggle against regional forces which were at times quite strong. In the meantime, the need for external support and an established bureaucracy was still urgently called for.

What about the New Order government? The present government seems to be stronger and the society is no longer fragmented as was the case forty years ago. This may perhaps be an indication that aside from the old model, a new framework of a concept needs to be formulated as well.

The Armed Forces of Eight Countries

Military-Civilian Relations in Southeast Asia by Zakaria Haji Ahmad and Harold Crouch (Eds.). Singapore: Oxford University Press, 1985, 368 pp. This review article by Burhan Magenda is translated from *Tempo*, 4th January 1986.

Although this book has been given a "new" title, namely the military-civilian relations (and not the reverse as had previously been published), this collection of various articles deals basically with the political role of the military in Southeast Asia. As admitted by one of its editors, Zakaria Haji Ahmad, this book has been written to highlight the political role of the military as something which is active and positive.

On the basis of this basic assumption, the political role of the military is to be discussed as desired within a particular and historical framework: due to the divided civilian elite, differences in the ways to strive for and to gain independence, differences in the politicising of the officers corps, the difference of the stages in the process of modernisation. Putting together 10 articles (one introductory article; seven articles on Burma, Indonesia, Thailand, Malaysia, Singapore, the Philippines, Laos and Vietnam; and two theoretical and comparative articles as the concluding part), one may assume that the contents of this book is not quite consistent with its main theme. Undoubtedly a flexible title is really needed to cover the variety of problems in various Southeast Asian countries.

Robert Taylor's article on Burma and Chai-Anan Samudavanija together with Suchit Bunbongkarn on Thailand have contributed sufficient analyses on the development of the political role of the military in the two respective countries. Together with the article on Indonesia -- written by Harold Crouch and which is merely a renovation of data presented in his

book he wrote entitled, *The Army and Politics in Indonesia*, -- those three case studies have illustrated the dynamics of the military-civilian relations in Southeast Asia.

Taylor depicts the change of the political role of the Burmese armed forces, which since the Japanese occupation were the pioneers of the struggle for independence under the leadership of "30 Thakins," who were trained by the Japanese on the Island of Hainan. The turbulence, that occurred after the independence, particularly by the end of 1948, when 60 per cent of the armed forces sided with the rebels (communists and Karen separatists), which dragged on during the 1950s in a variety of crises, and was thereafter followed by the Burmese military take over of the reign of PM U Nu in 1962.

During that critical period, the military as a political institution was also personified in the person of Ne Win, who had been the Burmese Commander in Chief since 1945, and the only one who kept his military status among the "30 Thakins" mentioned above. Hence, Taylor sees in Ne Win a man who successfully institutionalised the role of the military with the forming of the Burmese Socialist Programme Party (BSPP) as the single party in 1964. The BSPP is still under Ne Win's leadership until now, although he has handed over the presidential office to General San Yu, the former BSPP Secretary General, in 1981. Hence, Ne Win has witnessed the entering of a new generation by virtue of a political socialisation through the BSPP without being affected by the political wounds of the 1950s, and the military domination of the 1960s.

The decline of the military domination is noticeable from their membership in the BSPP -- from 58 per cent in 1972 became 9.6 per cent of the total (1.5 million) members of the party after nine years. This means that BSPP has increasingly recruited its members from the wider social strata. This was increasingly needed for the economic development currently launched by Ne Win, so that the number of military officers assigned in the economic sector has been concomitantly matched by the recruitment of civilian elements in the BSPP, though top func-

tions are still being occupied by retired military officers. According to Taylor, this political institutionalisation was made possible due to the fact that the Burmese military leadership belonging to Ne Win's generation, are composed of ex-radical university student activists, who in their political perception viewed that military domination was only a transitional process pending the formation of a single party backed by the government.

The change from military domination to a form which has the characteristics of a co-ruler has also been expounded by Chai-Anan and Suchit. Their article on Thailand is very informative in nature, since it discusses the difference of opinion amongst young officers, particularly between the group of the "Young Turks" and that of the "Democratic Soldiers." It was the group of the Young Turks led by Colonel Manoon, that launched the two abortive coups consecutively in April 1981 and on 9th September 1985.

The group of these Young Turks reflects the rift in a military government that has too long been dominant. The old grouping is centered around an alliance with non-military or ideology based political groups, whereas the grouping of young officers is based on the year of their registration or graduation from the Military Academy, promotion to the same unit, or family relationship, and one common ideal, namely the reformist ideology under a new military government. This serves to distinguish them from the military oligarchy a la Thanom-Prapath before 1973, and their impatience with the political process and the role of political parties after 1973. The failure of the two coup d'etats of the Young Turks was an indication that the main political force in Thailand did not wish to return to a total military domination in the field of politics as had been the case during the period before 1973.

This has been proven by the fact that the main opponent of the group of the Young Turks is that of the Democratic Soldiers under the current leadership of the second man of Thailand's Army, General Chavalit Yong-

chaiyuth. The appointment of Chavalit as the Army Chief of Staff also brought about the abortive coup in early September 1985 last.

The aim of the group of the Democratic Soldiers was to improve the democratisation process of Thailand's political life. This group opined that officers who were on active service should not assume a political function. If one wants to engage himself in practical politics, he has to resign from active service and become a member of a political party or an independent candidate. Accordingly, an officer who wants to go into politics has to compete freely with other candidates without being a representative of the military. This has been done, for example, by the former Young Turk prominent, Major General Chamlong, who has recently been elected as the Governor of Greater Bangkok and by the former Regional Commander IV (South) Lieutenant General Harn Leenanond, who becomes a parliamentary candidate for the Democratic Party.

Owing to the outstanding role of the group of Democratic Soldiers, the military of Thailand may act as activator. So that the political parties are able to keep its progressive élan, and is not merely dominated by the same oligarchy while preventing the military to resume its authoritarian role as was the case during the pre-1973 period.

On account of the different historical process, the style of the Democratic Soldiers certainly differs from the concept of the Dual Function of ABRI (the Indonesian Armed Forces), which encompasses a socio-political function as well as that of defence and security. Harold Crouch's article seems to be quite critical -- and to a great extent smacks of a biased reasoning -- and does not sufficiently point out the theme of this book, particularly in the political institutionalisation of the non-ABRI political and social organisations, such as Golkar. Crouch's conclusion was that "there is no civilian force being able to replace ABRI," and this clearly shows that he has not sufficiently deepen himself in the development of the institutionalisation process that has been going on since the 1970s in Indonesia. Consc-

quently, the dynamics of ABRI's Dual Function, and the enforcement of the civilian institution, such as Golkar have been rather overlooked. Whereas today, the appointment of ABRI's function has become increasingly selective, many of their retired members are actively engaged in Golkar, in an effort to establish strongholds for political parties and Golkar in villages by cadre training, and directing the orientation towards professionalism, which is viable on account of the process of generational transfer occurring among ABRI officers. These discussions should in fact enrich the other quite wellwritten analyses of Crouch and become a significant supplement to his previous book.

Why are precisely Singapore and Malaysia dominated by civilian governments? Ulf Sundhaussen who sees it from the theoretical point of view, relates it to the level of income per capita. This is not quite true. Many advanced Latin American countries also used to be ruled by military governments such as Argentina. Therefore, the strength of the civilian political institutions should also be reckoned with, so that, as written by Chan Heng Chee on Singapore, the youths of Singapore should be forced to go into military service. Consequently many leave after terminating their period of service or there is a tendency towards the forming of "university graduate -- officers."

Economic development has indeed led the best graduates to entering the civilian bureaucracy or companies such as Singapore Airlines. Hence they have to compulsorily raise the salary of officers to a highest possible rate and also promote other facilities to counter balance mentioned salary. It is not surprising that Singapore, which is ruled by a civilian government, has the highest defence security budget in Southeast Asia (5.8 per cent of the GNP, compared with Indonesia with 2.3 per cent of the GNP).

Compared with Singapore, the Malaysian Armed Forces differ in one important aspect, namely in the ethnic issue. Zakaria Haji Ahmad points out that the whole Malaysian military is divided into 64.5 per cent Malays

and 35.5 per cent non-Malays (data of 1969). This percentage increases at the level of officers, and virtually all important functions are in the hands of Malays. Accordingly, the special rights of the Malays according to the Constitution are reflected especially with the Royal Armed Forces, of which top positions are held by officers who have social ties with the royal family and the UMNO leadership. From this point of view, the Armed Forces "ensure" the domination of the Malays as reflected by the Royal Malay Regiment (RMR).

Aside from the two aforementioned patterns (military and civilian dominations), this book also describes the Vietnamese-Laotian pattern, which is closer to civilian domination; and that of the Philippines, in which the military is increasingly playing a major role in politics. In Vietnam-Laos, the dominance of the Communist Party is guaranteed by the existence of the Party's Central Military Committee, of which the commissars are assigned up to the lowest level of the military hierarchy. Carlyle Thayer who writes about Vietnam (as is the case with Scoffrey Gunn who writes about Laos), for example, saw the decline of the role of the Vietnamese People's Army, as being due to the process of both demobilisation and the initiation of economic development.

Conversely, in the Philippines, Carolina Hernandez saw a phenomenon similar to that in Thailand, namely the existence of differences in the officers corps. The protest of reformist officers against Marcos reflects the dissatisfaction of the Military Academy graduates with the greater role of "integris" officers. These integris officers are the main supporters of the Commander in Chief, General Fabian Ver.

Besides, restlessness also arises among non-Ilocanos (Marcos' place of origin) officers, owing to President Marcos' special treatment to Ilocanos officers. Hence Carolina opines that the internal cohesion of the Philippine Armed Forces is not so strong, so that it reduces their capacity for intervention. However, political intervention is always possible, especially in events of disruption in the Philippine political situation, since Marcos government has so far been politicising the officers corps of the Philippine Armed Forces.

The articles mentioned above and the two concluding articles by Sundhaussen and Crouch have made this book worth reading, particularly in comparing the tendency of the political role played by the military in South-east Asia. The emergence of the new post-colonial generation of officers has brought about different ideological perception, role and behaviour. This is even more so in view of the fact that those officers were recruited from the middle class which has become increasingly stronger in all aforementioned countries.

This will bring about the emergence of "advocates of the middle class" officers. Consequently, reformative ideas will be more overtly launched, as shown by the group of the Young Turks and that of the Democratic Soldiers in Thailand, and the tendency to enforce non-military political institutions in their respective countries becomes more pronounced. Unfortunately this book has not included an article on Kampuchea, which will in fact reveal how the rift in Pol Pot's guerrilla forces and Heng Samrin's has contributed in bringing about the protracted crisis in this oldest Southeast Asian country.

The Indonesian Quarterly is published in January, April, July and October.

Inquiries concerning subscriptions should be sent to NV Indoprom Company (Indonesia) Ltd., P.O. Box 2090 JKT, Jakarta, phone 801923, 801928, 802574, 802653. Subscription price is Rp4,000.00 a year; Rp3,200.00 for students; US\$14.00 for subscribers living outside Indonesia.

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